DOCUMENT RESUME

ED 360 501 CE 064 158

TITLE Vocational Education and JTPA. An Evaluation. 1993 Biennial Report.
INSTITUTION Maine State Council on Vocational Education, Hallowell.
PUB DATE 93
NOTE 85p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Cooperative Programs; *Coordination; Correctional Education; Employment Programs; Federal Aid; Federal Legislation; Federal Programs; *Job Training; Postsecondary Education; Program Effectiveness; Program Evaluation; Secondary Education; Sex Fairness; State Programs; Statewide Planning; Technical Institutes; Technology Education; *Vocational Education
IDENTIFIERS *Carl D Perkins Voc and Appl Techn Educ Act 1990; *Job Training Partnership Act 1982; Maine

ABSTRACT

This report presents the results of a federally mandated biennial evaluation of the effectiveness of the coordination between vocational education and the Job Training Partnership Act (JTPA) in achieving the purposes of the Carl D. Perkins Vocational and Applied Technology Education Act and JTPA. An overview describes the Maine vocational system, which includes 26 vocational centers and regions at the secondary level and 6 technical colleges at the postsecondary level and the 3 JTPA service delivery areas. Recommendations are made in four areas: (1) programs assisted under the Perkins Act in the areas of education, special populations, private sector involvement, tech prep, and corrections; (2) programs assisted under JTPA; (3) coordination; and (4) changes in Perkins funding. Distribution of Perkins funds is illustrated in charts and a diagram. Descriptions are provided of 17 projects representing 6 types of programs--coordination, equity, integration, partnerships, total quality management, and other. The name, address, and telephone number of a contact are provided for each program. Appendixes include diagrams illustrating student enrollments, results of an employer needs survey, and 16 references. (YLB)

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VOCATIONAL EDUCATION and JTPA

An Evaluation

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1993 Biennial Report Of the Maine Council On Vocational Education

CE 064158

MCVE

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The Maine Council on Vocational Education is a policy advisory body established under the Carl D. Perkins Vocational and Applied Technology Education Act. MCVE is 100% Federally funded by a grant of $150,000 from the U.S. Department of Education. Its 13 members are appointed by the Governor, with the majority and the chair representing the private sector.

MCVE's responsibilities under the Perkins Act are focused on three areas:

1. the importance of vocational education and the need for each state to improve its system and to make it more accessible to all who can benefit from it;

2. the need for vocational education to involve the private sector; and

3. the need for coordination and cooperation among those agencies responsible for education and training or retraining of the workforce to make the best use of the limited resources available.

The Council must report on these areas as well as provide for input from the general public.

At least once a year MCVE hosts a public meeting. MCVE members have found that these meetings provide a wealth of material for future study and help fine tune council positions.

State councils on vocational education have been in existence since 1969 and have played an increasingly important role in the improvement of vocational education programs throughout the country.

CE

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INTRODUCTION

FEDERAL MANDATE FOR STATE COUNCILS ON VOCATIONAL EDUCATION

State Councils on Vocational Education are mandated by the Carl D. Perkins Vocational and Applied Technology Education Act to evaluate biennially "the extent to which vocational education, (and) employment and training programs in the state represent a consistent, integrated and coordinated approach to meeting the economic needs of the state." The council must assess the effectiveness of the coordination between vocational education and the Job Training Partnership Act in achieving the purposes of each Act. The council also must assess the adequacy and effectiveness of each Act in meeting its purposes.

The council must then advise the Governor, the State Board of Education, the State Job Training Coordinating Council, the Secretary of Education and the Secretary of Labor of these findings and recommendations.

METHOD USED TO ADDRESS THE FEDERAL MANDATE

In order to address this mandate, the Maine Council on Vocational Education (MCVE) established the Biennial Report Committee. The committee members developed two survey instruments, one for vocational schools and one for Job Training Partnership Act (JTPA) agencies. Twenty-six vocational centers and regions, six technical colleges and the three JTPA service delivery areas were surveyed.

Most of the surveys were returned yielding a 76 per cent rate of return for secondary vocational centers and regions, a 50 per cent rate of return for the technical colleges and 100 percent rate of return for the JTPA service delivery areas.

A random selection identified the following schools and agencies for site visits:

Capitol Area Technical Center, Augusta
Bath Regional Vocational Center, Bath
Biddeford Regional Center of Technology, Biddeford
Hancock County Technical Center, Ellsworth
Calais Regional Vocational Center, Calais
Kenneth Foster Applied Technology Center, Farmington
Lewiston Regional Technical Center, Lewiston
Presque Isle Regional Vocational Center, Presque Isle
Westbrook Regional Vocational Center, Westbrook

Northern Penobscot Vocational Region III, Lincoln
United Technologies (MVR #4), Bangor

Central Maine Technical College, Auburn
Washington County Technical College, Calais
Kennebec Valley Technical College, Fairfield

Kennebec JOBS Program, Augusta
Mountain Valley Training, Lewiston
Training Resource Center, Portland
Training Development Corporation, Bangor

SERVICES TO SPECIAL POPULATIONS

MCVE surveyed the special education directors in each of the areas where site visits were conducted to assess services to special populations. MCVE also surveyed parents of special needs students to determine their satisfaction with the services provided to their children by the vocational centers and regions. MCVE held two public meetings over the course of the biennium. The first centered around tech prep and the second was devoted to a discussion of services to special populations.

PRIVATE INDUSTRY CONCERNS

MCVE, through the cooperation of the Maine State Chamber of Commerce and Industry, surveyed all of the State Chamber members to assess employer needs and concerns.

COUNCIL INVOLVEMENT IN THE DEVELOPMENT OF THE STATE PLAN

From October, 1990, to April, 1991, a subcommittee of the State Board of Education and the Maine Council on Vocational Education met on a monthly basis to review the emerging State Plan for Vocational Education and to make recommendations for changes when necessary.

The formation of the subcommittee allowed the Council the opportunity for input throughout the planning process. The subcommittee has continued to meet to discuss not only changes in the state plan, but also issues affecting vocational technical education.

OVERVIEW

Maine, not unlike many other states in the nation, has suffered the effects of the recession. According to "Maine Business Indicators," the state budget deficit was among the worst in the nation. Over the biennium more than 35,000 jobs were lost. Not only has the private sector been affected, but also state government. Since Maine's constitution requires a balanced budget, many state workers were laid off and services were cut or reduced in order to balance the state's budget. The state Department of Education was not exempt from the cuts. It lost over 50 positions during the '90-'92 biennium and stands to lose more over the next biennium as the state continues to fight its way out of the recession.

For those workers remaining, unpaid furlough days and shut down days reduced the time allowed to complete not only their work load, but also the work load of those who were laid off. To their credit, many of the employees in the Department of Education worked those shut down and furlough days, even though they did not get paid, in order to minimize the impact on services. Even so, the Department cannot maintain its current level of services and is in the process of restructuring.

The state received an increase in Job Training Partnership Act (JTPA) funds over the biennium because of the high rate of unemployment in Maine. As noted in the Job Training System Annual Report, the increases came mainly in the JTPA Title III formula and grant funds for a total JTPA allocation of $9,288,444 in PY'90 and $11,153,922 in PY'91.

The State of Maine received approximately $4.7 million for vocational education under the Carl D. Perkins Vocational Education Act and $4.9 million under the Carl D. Perkins Vocational and Applied Technology Education Act.

The Perkins money is administered by the Bureau of Applied Technology and Adult Learning (BATAL), located in the Department of Education. Maine's State Board of Education is the governing board for the department and is the sole recipient of vocational money for the state.

The Bureau of Employment and Training Programs (BETP), located within the state's Department of Labor, is the administrative unit for the JTPA funds. The Maine Human Resource Development Council (MHRDC) is the state's job training coordinating council.

VOCATIONAL EDUCATION

Maine has twenty-six vocational centers and regions at the secondary level. Vocational centers are governed by the school board in each area; vocational regions are governed by a cooperative board comprised of representatives of the sending schools.

The state has a system of technical colleges at the postsecondary level. The system is comprised of six campuses statewide and a system office. They are governed by a thirteen member board of trustees.

Distribution of the Carl Perkins funds under the old Act and first part of this biennium (FY'90-'91) was accomplished through the development of a collaborative proposal for approval by the State Board of Education. The funds were distributed according to the priorities and goals established through a needs assessment and planning process, both at the local and state levels.

Under the new Perkins Act, approximately half of the 75% portion of the basic state grant (Title II, Part C) will fund programs operated by the vocational centers and regions at the secondary level, and half will fund programs operated by the Maine Technical College System. Both of these providers will allocate at least 30% of this money for provision of services to adults through collaboration with local adult education programs.

JOB TRAINING PARTNERSHIP ACT

The JTPA dollars are allocated to the state by category. Title II, the largest category, utilizes 78 per cent of the funds and is dedicated to serving the economically disadvantaged population. The money goes directly to the service delivery areas (SDA's) according to the formula prescribed in the JTPA Act. The other 22 per cent is the Governor's Coordination Grant.

From the 22 per cent allocation, 5 per cent funds state administration, 3 per cent of the total dollars funds programs for older workers, 6 per cent funds incentive grants, and 8 per cent of the funding is dedicated for vocational training at vocational and adult education institutions. While the 78 per cent funds are passed directly to the SDA's, the 22 per cent money is held at the BETP and given to the SDA's according to the Governor's Coordination Criteria. Both of the Acts stress coordination and twenty per cent of the 8 per cent setaside is to be spent on coordination activities between JTPA and vocational education. The 8 percent set aside continues to be administered by the Maine Department of Labor.

Six per cent of the funding is used for incentive grants which are allocated by the state according to a set of criteria. In this way, good programs are rewarded and encouraged to expand.

Title III funds the Dislocated Worker Program. Because of Maine's high rate of unemployment, funding in this category increased significantly over the biennium. People do not have to be economically disadvantaged to enroll in the program.

The JTPA system in Maine consists of three service delivery areas (SDA's): the Twelve County SDA, the Cumberland County SDA and the Penobscot

Consortium. Each SDA has its own private industry council (PIC). The JTPA funds are administered by the Bureau of Employment and Training Programs (BETP). The JTPA funds are received from the federal government by the BETP and then are sent to the SDA's. Although the SDA's may operate some programs of their own, they broker specific vocational training. They contract with vocational schools, technical colleges, adult ed and other agencies to provide skill training and remedial education.

The Maine Human Resource Development Council (MHRDC) functions as the state's job training coordinating council. It is a 30-member council with representation from JTPA, vocational education, the private sector and other agencies involved in the delivery of human resource services. The council is charged with the coordination of all human resource development services in the state. The group did not meet regularly over this biennial period and therefore has not provided adequate oversight of the JTPA programs.

RECOMMENDATIONS

- **PROGRAMS ASSISTED UNDER THE CARL PERKINS VOCATIONAL and APPLIED TECHNOLOGY EDUCATION ACT**

8 - Education

18 - Special Populations

22 - Private Sector Involvement

24 - Tech Prep

27 - Corrections

28 • **PROGRAMS ASSISTED UNDER THE JOB TRAINING PARTNERSHIP ACT**

35 • **COORDINATION**

37 • **CHANGES IN PERKINS FUNDING**

PROGRAMS ASSISTED UNDER THE CARL D. PERKINS VOCATIONAL and APPLIED TECHNOLOGY EDUCATION ACT

1. EDUCATION

All students need to know the basics, that is, academic skills, thinking skills, and workplace literacy skills. They all need to be able to use resources, information systems and technology, no matter what their ultimate career goal is.

- The State of Maine must implement a comprehensive, sequential, integrated, seamless system of education, K-adult, **to prepare all Maine citizens for lifelong learning.**

  The system must include:

  * Open entry-open exit curriculum modules for all classes
  * Year-round schooling
  * Career education programs for all students K-adult
  * Technical writing and technical math for all students K-adult
  * Technology education for all students

  The system must be changed so that those students planning a career in technology will be able to access:

  * Entry level technical education at the secondary vocational centers and regions with the ability to transfer credits to the technical colleges.
  * Advanced technical education at the technical colleges

The purpose of the Carl D. Perkins Vocational and Applied Technology Education Act is to build a world class workforce. In order to do that, changes need to be made across the educational spectrum, not just in vocational education.

Ira Magaziner's report, "America's Choice, High Skills, Low Wages," and the Secretary's Commission on Achieving Necessary Skills (SCANS) report both have determined that academic education must change its focus. It must make learning relevant, develop critical thinking skills, teach team work, and apply academics. Schools also must infuse gender equity in all programs and courses of study.

Maine has moved into a global marketplace and its workers must be able to compete with workers world-wide. Companies that want to succeed must convert from a mass production model of manufacturing to a high performance model. As companies restructure and share decision-making responsibility with the front line workers, these men and women are going to need workplace literacy skills.

All students, male and female, must be prepared to obtain and maintain employment and must be prepared to continue education without remediation. In order for Maine to succeed in this effort, each student must be provided with a course of study that will enable him or her to survive and excel in the world of work.

The economic crisis provides an excellent opportunity to change the way people in Maine are educated. Since schools can no longer afford to do business as usual, teachers and administrators must concentrate on how their "business" can be restructured and retooled to prepare the students of the twenty-first century.

SCHOOLS NEED TO DEVELOP A STRONG CORE CURRICULUM

- **The core curriculum must be outcome-based, fully integrated, team oriented, and include applied learning.**
- **The principles of Maine's Common Core of Learning should be implemented in all schools.**
- **DACUMs should be implemented in all vocational programs.**
- **Skill certificates should be developed and used by all vocational instructors at the secondary level.**
- **Vocational schools should promote the existence and use of the skill certificates to the business community.**

There are certain kinds of information and processes that all students need to know, regardless of their educational and career choices. Changes must be made in the way that core curriculum is presented to students.

Students need to become proficient in each segment of the curriculum before moving on to the next. Their success should be measured by assessing performance and competency in a given subject, not by seat time.

Knowledge of the interrelationships between and among subject areas is very important and it facilitates the application process.

Most people learn best by applying what they are learning to real life situations. Applying theory gives it meaning and establishes relevancy which ultimately makes learning easier and more interesting.

Learning to work as a member of a team is very important to a student's success as a worker, no matter what the career or job. Cooperative learning in the school setting is part of the preparation for the world of work needed by all students.

Maine has just completed an in-depth review of its secondary vocational curricula through the DACUM (Developing A CUrriculuM) process. These curricula are competency-based. That is, they measure a student's proficiency in a task area rather than the amount of time a student has spent in that area. The curricula were written by groups of vocational technology teachers based on task analyses developed by practitioners in each field. Site visits have shown that not all teachers are using the DACUMs.

Because the DACUMs are competency based, skill levels have been identified for each task area. Students are then measured by how successfully they have addressed each skill area and these measures are then recorded on skill certificates. The skill certificates show a potential employer, at a glance, just how proficient a person is at a given task.

Effective promotion and use of these skill certificates could result in higher starting wages for students based on the skill levels they have attained.

SCHOOLS NEED TO DEVELOP OUTCOME BASED ASSESSMENTS AND ABOLISH THE CARNEGIE UNIT

- **Technical colleges, community colleges, and four year colleges and universities should use portfolio assessments and skill mastery certificates instead of Standard Achievement Tests (SAT) scores when considering students for entry.**
- **Congress should abolish the requirement for pre and post tests in vocational technical education.**
- **The vocational technical schools must encourage the use of active and effective Program Advisory Committees.**

Currently, a student's movement through the school system is based solely on seat time. There is no regard for achievement and competency in establishing the speed with which one moves through the various levels of school. Since people must become lifelong learners, there must be less arbitrary measures of success than seat time.

Changes in student assessment should translate into changes in assessments used for entry into postsecondary education as well. Currently most colleges, universities, and technical colleges use the Standardized Achievement Test (SAT) scores when they consider students for entry into their programs. Studies have shown that the SAT is not reflective of a person's true ability, nor is it a predictor of a person's potential for success in postsecondary education.

Current testing practices are inefficient at best and do not seem to measure accurately the student achievements. If competency based education is in place, these tests are not necessary.

Technology changes rapidly and instructors will need on-going input from practitioners in their fields to identify new competencies needed for successful graduates of vocational technical programs. This is especially critical if portfolio assessments are used to measure students' success. Active and effective program advisory committees are critical to the success of the vocational technical programs as well as the success of the students.

SCHOOLS NEED TO DEVELOP APPLICABLE TEACHER EDUCATION PROGRAMS

- **Teacher education programs must be restructured.**
- **Student teachers must be taught to teach outcome-based courses that are team oriented, fully integrated, and include applied learning.**
- **Vocational teacher certification requirements must be changed, especially for those teachers involved in the integrated studies programs.**

Colleges and universities haven't changed the way teachers are taught to teach. Major changes must be made in teacher education programs if school restructuring efforts are to succeed.

SCHOOLS NEED TO DEVELOP APPLICABLE TEACHER IN-SERVICE PROGRAMS

- **In-service programs must be restructured to include courses that are team oriented, fully integrated, and include applied learning.**
- **Teachers currently in the workforce must be taught to teach outcome-based courses that are team oriented, fully integrated, and include applied learning.**
- **Academic teachers should work with vocational educators to design in-service programs on competency-based education.**

In-service programs need to change in order to update the teachers who are currently in the workforce. They need to be able to teach outcome-based courses that are team oriented, fully integrated, and include applied learning.

Vocational technical teachers have used these approaches to educate their students. These teachers are tremendous resources and their expertise is valuable to anyone who is interested in applied learning.

SCHOOLS NEED TO DEVELOP FLEXIBLE SCHEDULING TO MEET STUDENT NEEDS

- **The legislature must enact a bill mandating year-round education at the secondary and postsecondary levels.**

While some school districts have attempted to develop a common calendar in order to increase student access to programs, the majority have not. Because schedules are so rigid, many vocational students are not able to meet the 175 day requirement even if they attend school every day they possibly can. (In one area of the state some students miss as many as 40 days of school a year solely due to scheduling problems.)

The school calendar was designed to accommodate an agrarian society enabling children to work on the family farm during the summer months. The non-agricultural workforce was comprised mostly of men. Women remained at home to care for the children. It is expected that only 2% of the nation's workforce will be involved in agriculture by the year 2000. Women are now almost equal in number to men in the workforce, and must stay there to maintain the family's standard of living. That means that a growing number of children need supervised care year round. Daycare is in short supply now, and it is not likely to get much better in the next few years.

There are now some compelling social and economic reasons to reexamine the traditional school year. Probably one of the most meaningful changes that should be made in terms of scheduling, is the institution of year-round schooling at **both** the secondary and postsecondary levels. Year-round schooling would help to address the growing concern over the global competitiveness of Maine businesses, and it would support the changes in the lifestyles, work schedules, and economic needs of Maine families. It also would be a more cost-effective use of tax dollars.

Other states have instituted year-round schooling. Students who are currently enrolled in these schools attend school for essentially the same number of days as they did under the old schedule. The difference is that the year-round schedule permits several shorter vacations instead of a long summer vacation. According to the Southern Growth Policies Board, "numerous studies show that students experience significant losses in learning over a long summer vacation.... Supporters of year-round education contend that year-round schools can improve educational achievement by providing shorter vacation breaks, and, consequently a more continuous mode of learning." Not only would this reduce or obviate the need for remediation upon return to school, but it would also enable more students to enroll in vocational technical programming and in programs such as the Maine Youth Apprenticeship Program.

Since most JTPA service providers do not operate their own skill training, year-round schooling would benefit their clients as well. Not everyone becomes unemployed in July or August so that they can start school in September. One of the biggest problems that JTPA faces is finding skill training for their clients after the school year has begun. If year-round schooling were instituted, a client would not have to wait an inordinate amount of time before accessing the needed training.

In addition, year-round schooling is a cost effective use of public resources. The Southern Growth Policies Board states, "current fiscal realities demand that attention be given to using public funds in the most cost-effective manner possible. Year-round scheduling can be used to accommodate growth, alleviate existing overcrowding, and allow for class size reduction while minimizing the need for expensive new school construction."

SCHOOLS NEED TO DEVELOP A PLAN TO PROMOTE LIFELONG LEARNING

- **Career guidance must be expanded to the lower grades.**
- **Every student, including adult learners, should develop an individual career/education plan.**
- **Parent(s)/guardian(s) must be involved in career guidance and in the development of their child's individual education plan.**
- **Vocational technical programming at both the secondary and postsecondary levels should consist of open entry/open exit modules.**
- **The system must be changed so that all entry level students, regardless of age (over 16), attend entry level vocational technical programs at the secondary vocational centers and regions, then go on to the technical colleges for advanced courses of study.**
- **Programs should be designed so that credits are transferrable to the technical colleges.**
- **Vocational technical teachers need access to more opportunities to keep pace with the technological changes in their program areas.**

Everyone must become a lifelong learner. Education does not stop upon graduation from high school or college. The advances in technology and the rate of information exchange is so rapid that jobs become obsolete and workers cannot remain current unless they are periodically retrained.

Individual career/education plans are being used in some schools. These plans should be used statewide for all students because they provide a framework for each student, and often provide goals that help to keep students from dropping out of school. Care should be taken that these plans remain flexible so they can be amended without detriment to the student when his or her interest changes.

Adults, as well as young people, need career guidance. This is important for displaced workers as well as those adults who have never been in the workforce or those who are reentering the workforce after a prolonged absence.

More modular programming is needed in vocational technology schools and technical colleges, especially for displaced workers. Not all workers lose their jobs at a time conducive to entry into training programs. Nor is there enough money in Maine's

restricted economy to build more buildings or expand programs extensively. If legislation were passed mandating year-round education, it would pave the way for modular programming.

There is limited access for secondary vocational technology students at the technical colleges and there are long waiting lists for entry into most of the technical colleges' courses. If Maine is going to meet the demand for a more technically skilled workforce, opportunities for technology training must increase. This could be done by satelliting programs at the secondary vocational centers and regions.

SCHOOLS NEED TO DEVELOP GENDER EQUITY INITIATIVES FOR ALL PROGRAMS

- **Federal and state governments must increase expenditure of funds for gender equity programs at the elementary and middle school levels.**

The number of nontraditional students in vocational technology and in Job Training Partnership Act programs is very small. Women and girls need the same opportunities as men and boys, that is, access to skill training and education that will allow them to earn a living wage, provide a chance for advancement, and qualify for a position which provides benefit packages, including health insurance. Attitudes about the roles of men and women in certain jobs need to change. This is harder to do when students reach high school even though Maine has some excellent programs in place and inroads are being made.

2. SPECIAL POPULATIONS

HANDICAPPED AND DISADVANTAGED

- **Schools need to provide vocational/technical teachers with in-service training on how to work with special populations.**
- **Each school should examine its policy regarding quotas on special populations.**
- **The state needs to establish a mentor system to support special ed students until they are ready to leave a protected environment.**
- **Parent(s)/guardian(s) must be an integral part of students' programs in addition to being involved in the PET process.**
- **Schools must identify students' learning styles in the early grades and teach to them. This will reduce the number of students identified as behavior problems.**

MCVE surveyed all of the secondary and postsecondary vocational technical schools in Maine as well as the special education directors in each of the areas in which site visits were conducted. Both the survey results and the comments at the public meeting showed that the Perkins funding is an integral part of providing services to special populations. These students would not be served as well without the Perkins dollars. Most of the surveys that were returned indicated that the following services adequately served their special needs students: instructional personnel, support personnel, equipment, transportation, facilities, programming, curriculum, counseling and coordination with other service providers. Daycare was only available in two sites at the secondary level, but was available at the postsecondary level. Where services were not adequate, funding cuts and personnel reductions were listed as the reasons. Most schools have employment placement services, but they are accomplished through a variety of methods. Only a few schools have placement directors. The others use Cooperative Education instructors, student service coordinators, other agencies, and transition teams to place students. Follow-ups are not consistent. A few surveys indicated that the facilities and the programs were not handicapped accessible.

Students with special needs come to the attention of the vocational school through the pupil evaluation team (PET) process or through the special needs coordinator at the sending school. At the postsecondary level students are identified through caseworker referral, self identification, or placement testing. Services are available for student evaluation once the disability is suspected. If the school does not have a trained evaluator on staff, it has access to one. In all cases there is coordination with other agencies and service providers.

For the most part the vocational schools do not have special programs for students with specific disabilities. They all provide for alternative instruction. Most students are mainstreamed and accommodations are made depending on the needs of the student. The recommendations of the PET team influence the services at the secondary level. Assistive technology is being used as student needs dictate. A few of the secondary vocational technical centers have a general trades program which serves those students who are not ready for entry into regular programming.

There is considerable variation in how parents and special needs students are informed about vocational education programs. They are generally provided information by: brochures, the PET process, parent teacher conferences, guidance counselors, open houses, vocational school tours, and vocational awareness sessions.

Several of the survey responses indicated that there were no procedures established to allow students, parents, teachers and community members to influence the types of programs offered to special populations. Where procedures do exist, they vary. Many schools use the PET as a vehicle while others hold parent group meetings, school board forums or send out surveys. In one community, businesses have adopted the schools in the area. Another community has recently established a Special Education Advisory Committee composed of teachers, parents and students to identify priorities and goals.

The following data shows the handicapped and disadvantaged student enrollment at the secondary and postsecondary levels:

PROGRAM YEAR 1990 - 1991

Handicapped Students in Vocational Education - Secondary Level:

Mainstreamed With Additional Services	842
Served in Separate Programs	250
Mainstreamed Without Support	228
Total Handicapped Enrollment	**1,320**
Total Secondary Vocational Enrollment	**6,800**

Disadvantaged Students in Vocational Education - Secondary Level:

Mainstreamed With Support	1,112
Mainstreamed Without Support	1,052
Served in Separate Programs	205
Total	**2,369**
Total Secondary Vocational Enrollment	**6,800**

Handicapped and Disadvantaged Students in Vocational and Technical Education at the Postsecondary Level, Maine Technical College System, Program Year 1990-1991:

	Handicapped			Disadvantaged		
	Male	Female	Total	Male	Female	Total
MTCS (PIC TECH)	0	0	0	8	8	16
CMTC	49	36	85	174	89	263
EMTC	30	15	45	280	173	452
KVTC	38	22	60	70	202	272
NMTC	18	9	27	180	128	308
SMTC	38	15	53	250	186	436
WCTC	80	13	83	56	9	65
TOTAL	243	110	353	1,018	795	1,813

SEX EQUITY/SINGLE PARENT/HOMEMAKER SERVICES

- **The programs in place to remove sex bias and stereotyping should be expanded.**
- **The Gender Equity Curriculum modules should be implemented in all vocational/technical programs as soon as they are complete.**

Many of the State's vocational technology centers and regions have been piloting one or more programs to increase the number of nontraditional students enrolled in vocational/technical education. There are currently four programs at the secondary level to address this issue.

1. "**Nontraditional Career Exploration**" for girls and boys provides student volunteers with experiential activities in vocational programs.

2. "**Expanding Your Horizons**" is designed to encourage young women to study math and science and to assist them in addressing the issue of sex bias. The one-day workshops include students, parents, and teachers.

3. **"Women in Nontraditional Careers"** utilizes curriculum developed by the Women's Bureau of the U.S. Department of Labor. This 40-hour course highlights nontraditional careers, sexual harassment, and self-esteem.

4. The **"Sex Equity Cadres"** are another attempt to address the issues of sex bias and stereotyping. Each school that is involved in the cadre program has identified one male and one female staff person to act as the cadre for the school. These two people will pull together a team of people from the sending schools and the community to identify sex equity needs in each area and to develop programs to address those needs.

About one-third of the students enrolled in vocational/technical education are female. Even with the aforementioned pilot programs, approximately half of the female students are enrolled in traditional female programs and half in balanced programs. There has been a very slight increase in the number of female students enrolled in traditionally male programs. (See Appendix A for charts.)

It is hoped that the number of nontraditional students will increase with the continuation and expansion of the four programs, combined with the implementation of the gender equity curriculum modules.

Five alternative vocational education programs were supported during the '90-'91 and '91-'92 school years. These programs were designed to serve single parents in secondary education who were at risk of dropping out of school because of pregnancy, child birth or parenting. The programs also are recovery programs for those single parents who had already dropped out of school.

The programs provide basic academic and vocational skills through pre-vocational and vocational training. They also provide supportive services in the form of child care and transportation to the students enrolled.

Four child care programs were available during the '90-'91 school year and six during the '91-'92 school year. These programs, too, were developed to serve the needs of single parents enrolled in pre-vocational and vocational programs at the secondary level.

The child care programs are stand alone programs and not part of the child care services provided in support of the students enrolled in the alternative vocational programs.

The child care programs provide on-site or off-site child care for the children of the vocational students. The programs also provide transportation services to the students and their children.

3. PRIVATE SECTOR INVOLVEMENT

- **Schools must teach team work and interpersonal skills in addition to academic subjects.**
- **Schools must teach technical reading and analysis.**
- **Schools must teach workplace literacy skills.**
- **More businesses should get involved in business/education partnerships and program advisory committees.**

The Evaluation Committee members of MCVE decided to develop an employer survey in order to identify the needs of Maine employers and to assess the quality of the workers currently employed. The Maine State Chamber of Commerce and Industry volunteered the use of its newsletter as the vehicle for the survey.

Seventy-four surveys were returned. They represented businesses which employ one to over one thousand employees. The charts in Appendix B show how those businesses were represented in the survey results. Respondents also represented most of the business types, some checking off more than one type.

The first survey question asked which academic skills were the most important for new employees. Under reading skills, the results were very close. Thirty-nine answered that analysis and decision-making based on comprehension of materials was most important while thirty-six responded that ability to read technical materials was most important.

Preparation of crisp, error-free communications was far the most important writing skill needed (42 responses). Second in importance was ability to write job orders (23 responses).

Attentiveness to customers and co-workers was the most important listening skill (47 responses.) Communication with a wide range of people was second (32 responses).

Employers are looking for people with a strong ability to do basic mathematical operations-addition, subtraction, multiplication and division (47 responses.) Second place was a tie between basic computational math (decimals, percentages) and logic and reasoning (14 responses each).

English, math, team work and interpersonal skills were the top four skills that all responding employers require. The larger the organization, the more important team work and interpersonal skills become.

Asked to rate reasons for rejecting job applicants, the respondents identified lack of basic skills as the overwhelming reason (32 responses). Little interest in the job and inability to communicate in the interview were the next most important (17 and 16 responses, respectively.)

In terms of hiring preferences, most employers considered previous work experience (30 responses). Interest shown in the job applied for and basic skills were second (14 responses each).

Most businesses preferred that prospective employees have general knowledge in all areas in preparation for specialized training (39 responses), but 25 responded that they want people trained generally in their field so further training is confined to their specific job.

When asked about employee attitudes, most respondents rated their employees as average to good in dependability, responsibility, and ability to follow directions. Employees were rated fair to average for pride in workmanship and ability to work under pressure. They were rated good to excellent in their willingness to learn new skills.

Most businesses spend from 0-2% of payroll on training. Most of the training dollars are spent on training top and mid-management although five companies indicated that they spend 50% of their training dollars on the front line worker.

Twenty-seven businesses are involved in business/education partnerships and forty-six are not. Of those forty-six, twenty-seven indicated interest in such a partnership.

The survey results were sorted according to type of business and, again, according to size of business to see if there were differences in the responses. There were no measurable differences. All of the businesses, regardless of the size or type of business, essentially want employees that have similar knowledge, skills, and abilities.

4. TECH PREP

- **The Maine Technical College System Board of Trustees should take steps to insure the availability of openings at the Technical College campuses for students enrolled in tech prep programs.**

- **A meeting of the Statewide Tech Prep Consortium, local consortia, and tech prep coordinators should be convened prior to the beginning of the FY'94 fiscal year to develop a common vision and goal for tech prep that is consistent with requirements under the Perkins Act.**

Tech Prep is a course of study that was designed to develop "strong, comprehensive links between secondary and postsecondary educational institutions," according to the Perkins Act. It is a four-year sequence of study beginning in high school and continuing through two years of postsecondary education, ultimately ending in a certificate or associate degree and placement in a technical career.

The program requires formal articulation agreements between the secondary and postsecondary institutions. The Act states that "an articulation agreement means a commitment to a program designed to provide students with a non-duplicative sequence of progressive achievement leading to competencies in a tech-prep education program."

There are seven required elements that tech prep programs must contain in order to receive funding under Title III of the Perkins Act:

1. Articulation agreements that provide for a non-duplicative sequence of courses

2. A curriculum design which must be a 2+2 between a secondary vocational/ technical school and a postsecondary technical school, and must contain a common core of proficiency in math, science and technology

3. Cooperative curriculum development between secondary and postsecondary programs

4. In-service teacher training to teach combined groups of secondary and postsecondary teachers how to use the tech prep curriculum

5. Counselor training which teaches how to recruit, retain and place students

6. Equal access for special populations

7. Preparatory Services to help prepare all populations to participate in tech prep

Maine's tech prep program utilizes a consortium configuration with a technical college at the hub, and applied technology centers and regions with their respective sending schools articulating with the college. Maine received $338,336 to fund its tech prep programs for the first year. Three consortia were funded. The Central Maine Consortium which covers the Androscoggin Valley region, the Kennebec Valley Consortium which covers the Kennebec Valley area, and the Northern and Eastern Maine Consortium which covers Aroostook, Washington, and Northern Penobscot counties. Increased federal funding, combined with a carryover from the 1991-1992 program year has provided sufficient funding to create the Eastern Maine Consortium which covers the Penobscot Valley area and the Southern Maine Consortium which covers southern Maine, thereby extending coverage to the entire state.

Of the $338,366, an allotment of $38,366 was dedicated to the state level activities under the Director of State and Federal Programs/Maine Tech-Prep Coordinator at the Maine Technical College System Office. Included in the state level activities is staff support to the state consortium board, technical assistance to the local and regional projects, and compliance activities such as program monitoring, evaluation, reporting and auditing.

The state plan provided for a $30,000 grant to the Technology Education Association of Maine to sponsor interdisciplinary workshops in order to develop partnerships between academic and technology education teachers. The funds can be used for curriculum development for courses that offer a real-world, hands-on, problem solving challenge to students. Grants ranging from $500 to $1,500 were awarded to thirteen partnerships comprised of technology education and academic instructors.

The remainder of the funds, $270,000, was divided among three colleges based on a competitive grant process. Each consortium hired a tech prep coordinator and contracted for clerical support. The goal for the first year of funding was for planning and demonstrating tech prep capacity and each consortium used a different approach.

The Maine State Plan for Vocational Education states, "The immediate outcome of the first project year is expected to be a series of program-specific, local, regional, and statewide articulation agreements, combined with an educational campaign to introduce the new course of study to educators, guidance counselors, administrators, students, and parents throughout the state."

The Northern and Eastern Maine Consortium encompasses a large geographic area. It takes in all of Aroostook County, Washington County and Northern Penobscot County. Communication was a major concern, so the consortium focused on the development of an electronic communication network. Funds were used to purchase modems for the participants and to establish an electronic bulletin board system.

The consortium members also began work on curriculum assessments. An applied technology school and its sending schools were assigned responsibilities with regard to specific curricula such as electronics, building trades, etc. The curriculum review is being done in preparation for the development of articulation agreements. The assignments were made by district to minimize the need for travel.

Public relations was the focus of the Kennebec Valley Consortium. The major effort of the group was the development of public relations material to promote the concept of tech prep. The Kennebec Valley Consortium worked with the state coordinator and the other two consortia to develop a video about Tech-Prep/Maine. The video is used to explain and promote the program statewide.

The Central Maine Consortium began by focusing attention on the development of agreements between the college and the other members of the consortium. These agreements offer college credits for work in high school applied technology programs. This allows a student who has taken an articulated course at the high school level to skip the course or take an advanced course at the postsecondary facility. The Central Maine Consortium has developed twenty-two agreements with ten applied technology centers and regions. Five additional agreements were pending at the end of the first year. From one to three college credits were awarded for the high school courses.

The Maine Council on Vocational Education held a public meeting on tech prep in the spring of 1992. Several members of the Central Maine Tech Prep Consortium attended the meeting. There was a great deal of support for the program, but many people expressed the concern that there would not be enough room at the technical colleges for all of the students that would enroll in a tech prep program. Given the current budget constraints, there is a strong possibility that there will not be adequate slots available for tech prep students. This problem needs to be addressed before students enroll in any tech prep program. If the postsecondary piece is missing, there can be no tech prep program as defined in the Perkins Act.

5. CORRECTIONS

- **The state should use the 1% funding for corrections to support vocational programs at the Maine Youth Center.**

The funding allocation for corrections under the Perkins Act, over the biennium covered by this report, was used to fund two vocational programs at the Charleston Correctional Facility, a pre-release center for men. The programs are Forestry and Woodharvesting and Small Sawmill Operator.

The Charleston Correctional Facility does not meet the criterion of Section 225(b)(2) of the Perkins Act which states that each program that receives funds must be accessible to women inmates. The Charleston facility is not accessible to women inmates.

Beginning with the FY'93 year, the funds have been divided between the Charleston facility and the Maine Correctional Center based on the percentage of males and females in the eligible population. As a result, 88% of the funds were allocated to Charleston and 12% to the Maine Correctional Center to fund a career guidance and counseling program for women. The Charleston Correctional Facility still does not meet the Section 225(b)(2) criterion of accessibility to women inmates.

The programs at the Maine Youth Center, academic and vocational, are accessible to both males and females and meet the guidelines under the Perkins Act.

PROGRAMS ASSISTED UNDER THE JOB TRAINING PARTNERSHIP ACT

- **Computer linkages should be established among agencies which provide human resource development services in order to facilitate needs identification and client referral.**
- **SDA's should coordinate more closely with the economic development agencies to determine current and future training needs.**
- **Congress should amend the JTPA legislation to permit the use of some funds for employee upgrading.**
- **The U.S. Department of Labor should eliminate the restrictions on the Dislocated Worker funding.**
- **Federal and state governments should reduce the paper work needed for accountability, thereby allowing more time for direct service to clients.**
- **The schools of applied technology, the university system, and the technical colleges should develop year-round programming to provide timely access to training for adult learners.**
- **The state should comply with federal law and allocate the 8% setaside intended to coordinate JTPA with classroom educational programs to the state Department of Education, not the state Department of Labor.**
- **The Maine Human Resource Development Council (MHRDC) should provide oversight of the Job Training Partnership Act independent from any state agency, and should have its own budget and the ability to hire staff.**

Maine has three service delivery areas (SDAs). The Penobscot Consortium SDA is operated by the Training and Development Corporation (TDC), is located in Bangor, and serves Penobscot, Hancock and Waldo counties. The Cumberland County SDA is operated by the Training Resource Center (TRC), is located in Portland, and serves Cumberland County. The remaining twelve counties are served by the 12 County SDA which is located in Augusta. All three SDAs were surveyed by the council and all three responded.

Client Characteristics

In reviewing the results of the surveys that MCVE sent out, all three SDAs met or exceeded the performance measures established by the U.S. Department of Labor

except for the "Youth Entered Employment Rate". In that category one service provider did not meet the measure because most of the youth enrolled in the Jobs for Maine's Graduates program already had jobs prior to entry into the program.

The SDAs met most of the SDA adjusted standards. Adult follow-up employment rates and youth entered employment rates were lower than planned due, primarily, to the poor economy. TDC reported that welfare recipients had higher retention rates and higher earnings at the time of follow-up. TDC attributes this to the greater level of training and support received by these individuals in the program.

TRC is meeting with nonprofit agencies in its area to improve working relationships. A booklet listing enrollment criteria is being developed by TRC to assist other nonprofit agencies in making appropriate referrals.

CHARACTERISTICS OF PY'90 and PY'91 PARTICIPANTS IN THE JTS
Unduplicated Count *

1990 and 1991	PY'90 Count	% of Total Participants	PY'91 Count	% of Total Participants
TOTAL PARTICIPANTS	5,663	100%	13,587	100%
Males	2,211	39%	4413	48%
Females	3,452	61%	4,761	52%
Youth (aged 14-21)	1,386	24%	3,908	29%
Older Workers (aged 55+)	331	6%	396	4%
Unemployed at Time of Application	3,872	68%	5,063	55%
Eligible UI Claimant	2,049	36%	3,148	34%
UI Exhaustee	204	4%	379	4%
Welfare (AFDC,SSI, and Other)	1,093	19%	1,808	20%
Food Stamps	1,407	25%	2,891	32%
Economically Disadvantaged	3,744	66%	6,838	75%
High School Dropout	912	16%	963	10%
Teen Age Parent	---	---	134	1%
Displaced Homemakers	245	4%	292	3%
Offender	307	5%	---	---
Persons with Disability	866	15%	1,823	20%

* Includes JTPA Title II-A, II-B, IIIIV-C, and the MTI, STAR and HOT Programs

CHARACTERISTICS OF PY'90 PARTICIPANTS BY PROGRAM

1990	Title II-A	%	Title II-B	%	Title III	%	MTI	%	STAR	%
TOTAL PARTICIPANTS	3,472	100%	1,462	100%	1,654	100%	1,479	100%	1,283	100
Males	1,269	37%	835	57%	624	38%	506	34%	568	44%
Female	2,203	63%	627	43%	1,030	62%	973	66%	715	56%
Youth (aged 14-21)	1,321	38%	1,462	100%	56	3%	316	21%	58	5%
Older Workers (aged 55+)	189	5%	0	0	196	12%	98	7%	83	6%
Unemployed at Time of Application	2,218	64%	326	22%	1,022	62%	1,018	69%	1,131	88%
Eligible UI Claimant	459	13%	3	0%	901	54%	446	30%	1,125	88%
UI Exhaustee	143	4%	0	0%	75	5%	74	5%	34	3%
Welfare (AFDC,SSI, and Other)	946	27%	417	29%	13	0%	182	12%	18	1%
Food Stamps	1,415	41%	567	39%	74	4%	341	23%	109	8%
Economically Disadvantaged	3,140	90%	1,387	95%	651	39%	827	56%	634	49%
High School Dropout	490	14%	84	6%	363	22%	299	20%	158	12
Teen Age Parent	--	---	---	---	---	---	---	---	---	---
Displaced Homemakers	238	7%	5	0%	8	0%	60	4%	20	2%
Offender	202	6%	145	10	58	4%	92	6%	62	5%
Persons with Disability	718	21%	524	36%	136	8%	207	14%	129	10%

CHARACTERISTICS OF PY'91 PARTICIPANTS BY PROGRAM

1991	Title II-A	%	Title II-B	%	Title III	%	MTI	%	STAR	%
TOTAL PARTICIPANTS	2,778	100%	3,187	100%	2,798	100%	1,116	100%	1,125	100%
Males	1,065	35%	1,810	57%	1,418	51%	409	37%	531	47%
Female	1,713	62%	1,377	43%	1,380	49%	707	63%	594	53%
Youth (aged 14-21)	1,009	36%	3,187	100%	109	4%	132	12%	48	4%
Older Workers (aged 55+)	144	5%	---	---	211	8%	76	7%	73	6%
Unemployed at Time of Application	1,719	62%	327	10%	2,193	78%	744	67%	996	89%
Eligible UI Claimant	495	18%	10	0%	1,919	69%	392	35%	1037	92%
UI Exhaustee	182	7%	7	0%	198	7%	84	8%	23	2%
Welfare (AFDC,SSI, and Other)	812	29%	1,050	33%	36	1%	201	18%	15	1%
Food Stamps	1,272	46%	1,520	48%	247	9%	349	31%	109	10%
Economically Disadvantaged	1,611	58%	3,100	97%	1,267	45%	766	69%	545	48%
High School Dropout	381	14%	189	6%	373	13%	143	13%	103	9%
Teen Age Parent	66	2%	79	2%	2	0%	10	1%	0	0
Displaced Homemakers	235	8%	22	1%	24	1%	84	8%	14	1%
Offender	---	---	---	---	---	---	---	---	---	---
Persons with Disability	571	21%	920	29%	262	9%	178	16%	140	12%

Outcomes

Overall the SDAs approximated their enrollment and termination goals. The "entered employment" goals were low due to the depressed economy. The state of the economy also accounted for the large number of displaced workers.

OUTCOMES OF PY'90 and PY'91 PARTICIPANTS IN THE JTS
Unduplicated Count *

1990 and 1991	PY'90 Count	% of Total Participants 5663	PY'91 Count	% of Total Participants 9174
TOTAL TERMINATIONS FROM THE JTS	3,140	55%	4,428	48%
Total Entered Unsubsidized Employment	1,979	35%	2,101	23%
Youth Entered Unsubsidized Employment	---	---	339	4%
Adults Entered Unsubsidized Employment	---	---	1,762	19%
Adult Entered Employment Rate	72%		71.20%	
Average Wage at Placement	$6.64		$6.59	
Average Adult Wage at Placement	---		$6.81	

* Includes JTPA Title II-A, II-B, III,IV-C, and the MTI, STAR and HOT Programs

OUTCOMES OF PY'90 PARTICIPANTS BY PROGRAM

1990	Title II-A	* %	Title II-B	* %	Title III	* %	MTI	* %	STAR	* %
TOTAL PARTICIPANTS	3472		1462		1654		1479		1283	
TOTAL TERMINATIONS	2,087	60%	1,462	100	576	35%	988	67%	701	55%
Entered Unsubsidized Employment	1,177	34%	28	2%	484	29%	578	39%	556	43%
Adult Entered Employment Rate	68%	---	0%	---	84%	---	62%	---	80%	---
Adult Wage at Placement	$6.35	---	$0.0	---	$6.59	---	$6.40	---	$6.91	---

* % of Total Participants in each program

OUTCOMES OF PY'91 PARTICIPANTS BY PROGRAM

1991	Title II-A	* %	Title II-B	* %	Title III	* %	MTI	* %	STAR	*%
TOTAL PARTICIPANTS	2278		3187		2798		1116		1625	
TOTAL TERMINATIONS	1231	44%	2961	93%	1346	48%	540	48%	598	37
Total Entering Employment	801	29%	62	2%	963	34%	342	31%	434	27
Adults Entering Employment	552	20%	0	0%	920	33%	299	27%	407	25
Adult Entered Employment Rate	74.0	---	---	---	71.4	---	66.7	---	72.4	---
Adult Wage at Placement	$6.32	---	---	---	$6.81	---	$7.17	---	$6.81	---

* % of Total Participants in each program

Program Activity

The SDAs continue to use the area vocational centers and regions, adult education programs the technical college system and the university system for the education and skill training needs of most of their clients, primarily on an individual referral basis. Most service providers have some basic education remediation capability on site but use the adult basic education programs for clients needing extended remediation.

Service providers offer employment competency activities to their clients. These activities include career exploration programs, job search assistance and other life skills activities.

A major problem for service providers is the issue of timing of client needs versus class startup. It is difficult for JTPA to find skill training for their clients after the school year has begun. Since the technical colleges and adult education do not offer year-round schooling or modular programming, it is not possible for JTPA clients to enter training in a timely manner. Clients' benefits may be exhausted before they can enter vocational programs, so many of them cannot access appropriate skill training. The depressed economy has been responsible for a large increase in the number of people applying for programs at the technical colleges. This reduces the number of slots available for JTPA clients.

The recession has produced a new type of dislocated worker. Many of these people do not need the usual remediation and retraining because they have college or technical degrees. Since the retraining options for these workers is limited, many of them leave the state.

Congress should amend the JTPA legislation to allow part of the money to be used for employee upgrading. This would prevent many layoffs.

Management Information System

The management information system that has been in use cannot provide data to show a return on investment. Additionally, the system cannot provide data on the numbers of males and females in each program area or the difference between them with regard to average cost per placement, average length of enrollment, and entry level wage. TRC has designed a new case management system and TDC has developed an Automated Case Management System that will be able to provide this data.

Each SDA is responsible and accountable for several different programs. Employees must account for their time for each funding stream and still serve the clients. This process requires excessive paperwork and takes time away from direct service to clients.

8% Setaside

Under the original Job Training Partnership Act, the allocation of the 8% setaside was intended to flow to the state education agencies, but Maine, along with some other states, brought the setasidse back to the state labor department. The Job Training Partnership Act amendments and the new JTPA regulations prohibit Governors from allocating these funds to the state entity that operates the JTPA. According to section 628.315 of the rules and regulations of the Job Training Partnership Act, "'State education agency' shall not include the State agency which administers the JTPA program within the state."

MHRDC

The Maine Human Resource Development Council (MHRDC) has not met since June, 1992. As a result, there has been no oversight of the JTPA. It needs to be reconvened in order to approve the Dislocated Worker grant and the new state plan under the Job Training Partnership Act, and to fulfill its mandates as the job training coordinating council.

Given the diminished human resources within the state, it would be an opportune time to re-establish the MHRDC as an independent entity that has the ability to hire its own staff rather than add another burden to the overworked staff at the Bureau of Employment and Training.

Currently there is no budget to support the MHRDC. There needs to be an appropriation of funds to support an independent council.

COORDINATION

- **Education and training leaders should work together to develop area education and training resource inventories which outline the availability of education and training opportunities as well as entry requirements.**
- **Vocational technical educators, adult educators, and JTPA agency representatives should meet regularly to facilitate the identification of client and agency needs and provide an opportunity for more effective program planning.**
- **Education and training leaders should meet regularly with economic development agencies to identify emerging training needs.**

There should be a more coordinated approach for the development and dissemination of more and better information regarding education and training opportunities for Maine citizens.

JTPA and vocational technical education planning processes have no formal coordination. Individuals at the local level are working together to share information regarding program openings and projected needs in order to maximize resources and provide the best services possible.

Coordination between the vocational technology schools and the Job Training Partnership agencies has improved in many areas in the state over the last several years. Coordination has been strong in the more rural areas because of the need to maximize limited resources.

There is good coordination between the JTPA agencies and the technical college system. However, timing of programs and capacity for students is an increasing problem. Technical colleges have taken funding cuts at a time when demand is increasing due to the recession.

JTPA and adult education coordination is strong, but the funding problems have impacted adult education as well.

Coordination between JTPA and the secondary vocational technology centers is not as active. Most secondary schools do not have many adults in their programs although there are some schools that have admitted JTPA clients to their day programs and that has been successful.

TDC would like to see a coordinated approach to the development and dissemination of more and better information regarding education and training opportunities for Maine citizens. TDC cites the need for an area vocational

resource inventory for consumers. That seems to be a need in all parts of the state.

The Penobscot Consortium's private industry council (PIC) identified coordination with educational systems as a primary goal for PY '92. The intent is to implement practices that eliminate duplication of services, foster joint process of service delivery and coordinate funding to achieve a net increase in the training and retraining efforts within the SDA. There are many individual referrals of JTPA clients to all programs throughout the technical college system. There are also some joint ventures. The PIC/TEC Scholarship Project is a joint venture between the PICs of all three SDAs and the Maine Technical College System. The arrangement provides full tuition at the technical colleges for handicapped students. JTPA pays tuition up to $1,200 and the MTCS pays up to $600 to the JTPA provider in the name of a specific student to provide additional support services.

The other joint venture is the Health Occupations Training Project (HOT). In response to the needs of the health care industry, the Maine Legislature passed the HOT. The money is used to provide recruitment, training, financial assistance and placement services to people entering the health field.

CHANGES IN PERKINS FUNDING

- **Congress should change the funding formula to include funding for new and innovative programs.**
- **Congress should reassess the distribution formula for local districts.**
- **Congress should change the funding structure with regard to special populations.**

Congress, when considering changes in the Perkins Act, should take into account the purpose of the Act which is, "building a world class workforce." Congress should then look at the relationship between that purpose and the funding formula, and allocate funds in a manner that allows the greatest number of students to benefit and move forward.

The current funding formula under Perkins does not include funding for new or innovative programs. That was one of the more successful components under the former Act. Most states have suffered from the recession and are using spare resources to maintain programs. Many other states do not even have spare resources and are cutting back essential programs. The only way innovative programs can be funded is from outside resources. Funding for new and innovative programs should be a part of the Perkins funding again.

There is not sufficient money available under the current formula for most schools in Maine to make any substantive changes. Schools that were successful in soliciting and receiving grant money, especially for work with special populations, no longer have those dollars under the new funding formula. For other schools, the money they receive does not warrant all of the paper work they must process to secure the dollars.

Again, the amount of money schools receive under the current act is too small to make any major impact on services for special populations. The competitive grant process was more effective in impacting special populations because sufficient resources could be obtained.

DISTRIBUTION OF FUNDS

Distribution of the Carl Perkins funds under the old Act and first part of this biennium (FY'90-'91) was accomplished through the development of a collaborative proposal for approval by the State Board of Education. The funds were distributed according to the priorities and goals established through a needs assessment and planning process, both at the local and state levels. Funding was awarded to schools through a competitive grant process.

Under the current Perkins funds, for the second part of this biennium (FY'91-92), the money was allocated commensurate with the activities set forth in the state plan and in compliance with the Perkins regulations.

- **FY'91 AND FY'92 Distribution of Funds**

	FY91	FY92
Administration	$265,101	$190,000
Sex Equity Coordination	60,000	60.000
State Level Technical Assistance	558,568	
State Leadership (Title II,Part A)		365,218
Handicapped	409,324	
Disadvantaged	898,821	
Adult Education	504,232	
Single Parents and Homemakers	331,253	345,094
Sex Equity	142,663	142,098
Corrections	40,975	40,599
Part II Title C (Basic Grants)		3,222,510
Career Guidance and Counseling	184,000	
Curriculum	131,210	
Personnel Development	425,000	
Program Improvement/Innovation/Expansion	523,050	
Community Based Organizations	61,125	61,107
Consumer and Homemaking Education	242,912	182,533
Tech-Prep (Title III Part E)		338,362
TOTALS	**$4,778,234**	**$4,947,521**

• TITLE II, PART C ALLOCATIONS TO ELIGIBLE RECIPIENTS PY'91-92

SECONDARY

Recipient/Site	Adult Set-aside	Other Program Funds	Total
Augusta	26,135	55,966	82,101
Bath	19,317	41,365	60,682
Biddeford	16,997	36,400	53,397
Bridgton	11,047	23,657	34,704
Calais	9,812	21,010	30,822
Caribou	18,242	39,064	57,306
Dexter	24,814	53,137	77,951
Ellsworth	20,617	44,150	64,767
Farmington	12,744	27,291	40,035
Lewiston	47,358	101,416	148,774
Machias	12,590	26,961	39,551
Portland	45,374	97,168	142,542
Presque Isle	12,582	26,943	39,525
Sanford	32,166	68,881	101,047
Skowhegan	18,524	39,666	58,190
St.John Valley	11,649	24,945	36,594
Waterville	22,926	49,094	72,020
Westbrook	25,183	53,927	79,110
Region 02	13,069	27,987	41,056
Region 03	12,032	25,767	37,799
Region 04	35,656	76,355	112,011
Region 07	15,570	33,341	48,911
Region 08	19,579	41,929	61,508
Region 09	10,401	22,273	32,674
Region 10	14,951	32,018	46,969
Region 11	11,793	25,255	37,048
Total-Secondary/Adult	**521,128**	**1,115,966**	**1,637,094**

POSTSECONDARY

Recipient/Site	Adult Set-aside	Other Program Funds	Total
Central Maine TC	62,633	118,575	181,208
Eastern Maine TC	70,778	192,652	263,430
Kennebec Valley TC	72,503	155,517	228,020
Northern Maine TC	40,158	254,784	294,942
Southern Maine TC	133,382	199,527	332,909
Washington County TC	30,118	79,591	109,709
MTCS Office (Administration)	1,556	35,320	36,876
VCRCOM	90,000	0	90,000
Statewide Staff Development	0	70,000	70,000
PIC TECH Scholarships	20,000	10,000	30,000
Total Postsecondary/Adult	**521,128**	**1,115,966**	**1,637,094**

Of the 75% portion of the basic state grant (Title II, Part C), approximately half will fund programs operated by the vocational centers and regions at the secondary level, and half will fund programs operated by the Maine Technical College System. Both of these providers will allocate at least 30% of this money for provision of services to adults through collaboration with local adult education programs. (This distribution approximates the distribution of funds among secondary, postsecondary and adult vocational technical education agencies under the previous Perkins Act.)

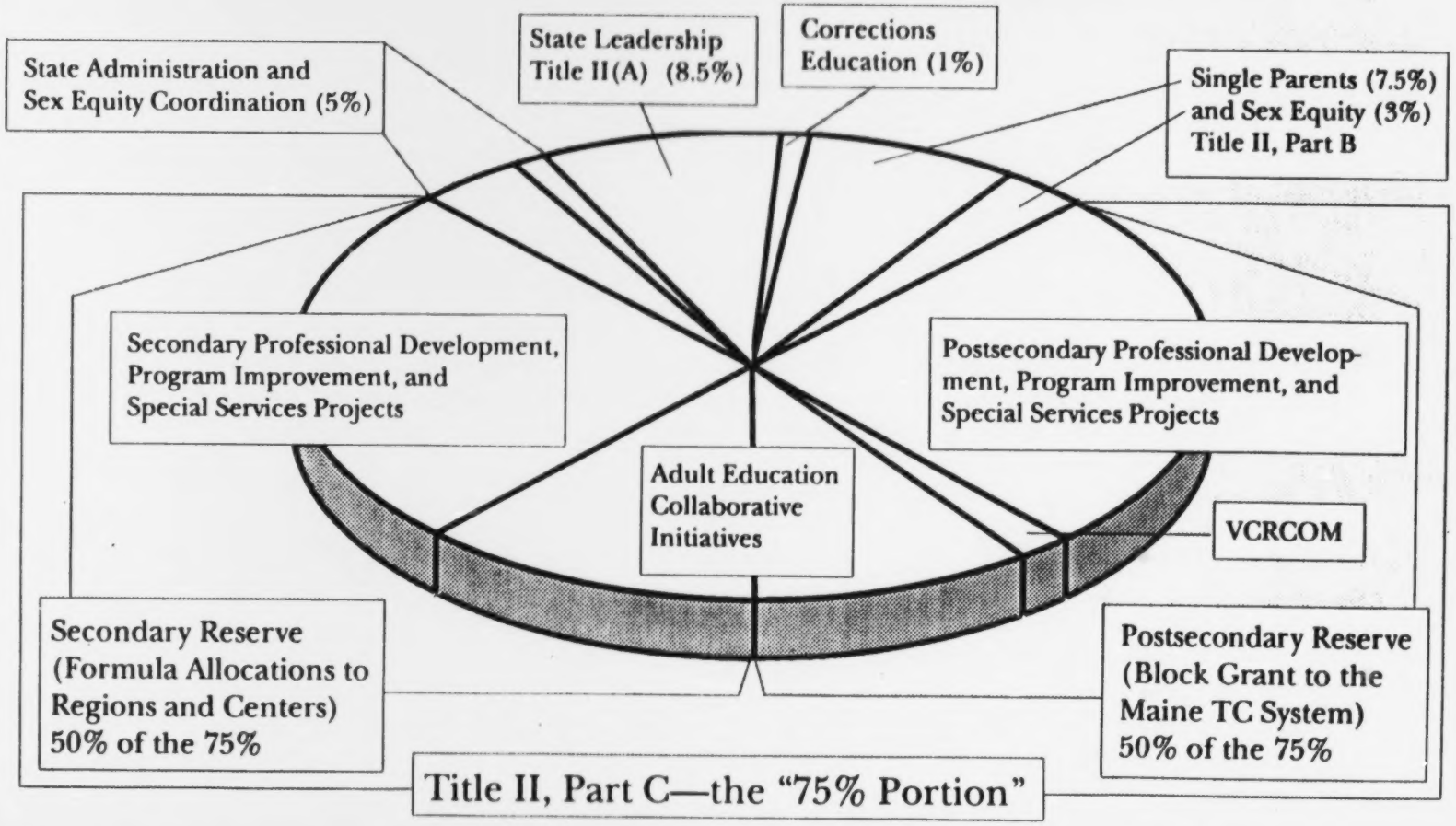
The local allocations were made in accordance with Section 231 of the Act which focuses Federal support on schools in areas with the greatest number of economically disadvantaged students and the highest concentrations of individuals who are members of special populations. Both secondary and postsecondary local education agencies were required to submit plans for the expenditure of funds. The plans were written according to guidelines issued by the state. Local needs assessments were a mandatory part of the process.

Under Title II, Part B, 1% is allocated for corrections, 3% for sex equity programs, and 7.5% for single parents, displaced homemakers, and single pregnant women - the last two categories will use a competitive grant process to distribute the funds. Under Part A, 13.5% is allocated for state administration and state leadership. Expenditures have been consistent with the Act and the state plan.

During the 1992-94 program years, the secondary vocational community will pool some of the resources available under Title II(C) to: continue curriculum development through the DACUM process; support professional staff development activities for vocational educators, counselors, and administrators; support student organizations; and support the Vocational Curriculum Resource Center of Maine (VCRCOM). VCRCOM is also supported by Perkins funds allocated to the MTCS.

CARL D. PERKINS VOCATIONAL & APPLIED TECHNOLOGY EDUCATION ACT

Allotments by Category, Basic State Grant State of Maine, 1991-1992 Program Year


State Administration and Sex Equity Coordination (5%)
State Leadership Title II(A) (8.5%)
Corrections Education (1%)
Single Parents (7.5%) and Sex Equity (3%) Title II, Part B
Secondary Professional Development, Program Improvement, and Special Services Projects
Postsecondary Professional Development, Program Improvement, and Special Services Projects
Adult Education Collaborative Initiatives
VCRCOM
Secondary Reserve (Formula Allocations to Regions and Centers) 50% of the 75%
Postsecondary Reserve (Block Grant to the Maine TC System) 50% of the 75%
Title II, Part C—the "75% Portion"

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COORDINATION

1. TECHNOLOGY EXPLORATION CAMP

MOUNTAIN VALLEY TRAINING

Mountain Valley Training provides the traditional JTPA services to clients in Androscoggin, Oxford and Franklin counties. Among the career exploration activities offered at the center is the Technology Exploration Camp. It is run in partnership with Central Maine Technical College. There are actually two camps, one for youth and another for adults.

Those enrolled in the program have the opportunity to experience three to five technologies at the college. The students may then select a field trip to a business to get a first-hand look at how the technologies they have experienced are actually used in the work place.

All of the students enrolled in the Summer Youth Program attended the Technology Exploration Camp. This model was also used in the Displaced Workers Program.

A similar program was developed in conjunction with a local hospital for exploration in the medical technologies. The program provides a hands-on experience for twenty-five people per day at six departments within the hospital.

These exploration programs are both beneficial to the client and cost effective for the service provider because they enable clients to experience the work before dollars are spent for inappropriate training.

For more information:

Gil Ward
Mountain Valley Training
536 Lisbon Street
Lewiston, ME 04240
(207) 795-4060

2. VOCATIONAL CURRICULUM RESOURCE CENTER OF MAINE

The Vocational Curriculum Resource Center of Maine (VCRCOM) was initiated through a Carl Perkins grant in 1987. The center is located on the campus of Kennebec Valley Technical College in Fairfield.

VCRCOM has just completed its fifth year of operation and has played a pivotal role in the curriculum revisions of all of Maine's secondary vocational curricula. The Center director has facilitated most of the DACUM's and has coordinated the writing of all of the curriculum pieces. This project would not have been possible without the VCRCOM. The center also provides curriculum development services for tech prep, apprenticeship, equity and integration. The center coordinated the Gender Equity DACUM project and will continue to coordinate the writing and piloting of the five curriculum pieces.

VCRCOM's lending library functions are the major support service for schools and agencies. When the center began in 1987, it served a total of eighteen schools and state agencies, reaching a high point of 361 schools and agencies in 1991. VCRCOM handled circulation requests of 802 in 1988 and 3,568 in 1992.

The center hosts the in-state MEVOCNET electronic bulletin board system. It also participates in the National Network for Curriculum Coordination in Vocational and Technical Education and in the Northeast Curriculum Coordination Centers Network.

The trade and technical DACUMs and the Gender Equity DACUM could not have been undertaken and completed without the VCRCOM. The VCRCOM will continue to play a vital role in the continuous development, upgrading and refinement of Maine's vocational curricula through its resource lending, curriculum assistance, and networking capabilities.

For more information:

Susan Donar, Director
VCRCOM
Kennebec Valley Technical College
92 Western Ave.
Fairfield, ME 04937
(207) 453-9762

3. PROJECT SOAR

Project SOAR (Structured Opportunities for AFDC Recipients) is part of a nationwide demonstration project that includes ten sites. Project SOAR's top down, bottom up strategy is designed to combine the expertise of area resources in creating a link between economic development and human resource development. The project has targeted Androscoggin County.

The goal of the project is to move families off AFDC within three years through two basic strategies. The first, targeted employment, provides businesses access to capital, technical assistance and opportunities for job creation. In return for expansion dollars, businesses agree to hire SOAR AFDC recipients at wage and benefit levels which allow them to leave the welfare system.

Concurrently, targeted employment participants receive intensive workforce literacy and technical skills training designed to give them the fundamental skills necessary to become the competent workers that businesses need.

The second track, self-employment, provides AFDC recipients who wish to start their own businesses with necessary microbusiness development training, mentoring and access to capital to ensure business success over a three year period.

Coastal Enterprises, Inc. is the major grant recipient. It has tapped the resources of the Department of Human Services, Displaced Homemakers Program, Mountain Valley Training, Adult Education, Central Maine Technical College and the Women's Business Development Corporation as well as the Lewiston/Auburn Growth Council, Androscoggin Valley Council of Governments and the local Small Business Development Center.

For more information:

Sally Davis
Displaced Homemakers
Community Drive
Augusta, ME 04330
(207) 621-3440

Kathy Kearney
Coastal Enterprises, Inc.
PO Box 268
Wiscasset, ME 04578
(207) 882-7552

Patricia Morrison
Mountain Valley Training
536 Lisbon Street
Lewiston, ME 04240
(207) 795-4060

EQUITY

1. SEX EQUITY CADRES

The Bureau of Applied Technology and Adult Learning (BATAL) has a goal of effecting long term change in attitudes of and about women in nontraditional occupations. It has recognized the need to develop long term strategies that impact sex equity and nontraditional enrollment at the local level. To address its goal, the bureau established support for the development of sex equity cadre initiatives at six secondary vocational centers and regions across the state. The cadres were designed to produce widespread community support for gender equity as well as nontraditional students and workers. The success of the first year's cadre efforts led to an expansion of the program to nine sites the second year and ten the third. A total of thirteen sites have been involved in the cadre program to date.

According to Edward Maroon, Sex Equity Coordinator for the BATAL, the Cadre is made up of a nucleus of two individuals from the vocational school, preferably one male and one female faculty or staff person identified as the local program coordinator. The Cadre is further made up of a team of persons drawn from the sending schools and community at large. The team is responsible for conducting assessments, identifying barriers to nontraditional enrollment and employment, developing strategies to remove barriers, developing a plan to implement the strategies, implementing the plan, and evaluating the program and its activities.

The Displaced Homemaker Program (DHP) took over the technical assistance responsibilities for the cadres in the second year of the program. DHP provides on-site technical assistance and monitoring for each site and also holds four workshops throughout the year for the cadre teams.

The cadres have conducted a number of different activities to meet their goals:

- The Farmington Cadre developed an improvisational theater, works with the affirmative action committee, and is pioneering the integration of gender equity issues through cross curriculum exchange and team teaching.

- The Lincoln Cadre is proud of the success of its female automotive student. She has remained in the program for two years and wants to pursue a career in the automotive field.

- The Oxford Hills Cadre hosts a summer academy for fifth and sixth graders on "Nontraditional Vocational Opportunities." The academy has created overwhelming interest on the part of students and teachers.

- The Waterville Cadre has been designated as the coordinator for all of the in-service training for the Waterville school system.

For more information see #3

2. GENDER EQUITY PROJECT

The success of the first year's cadre efforts led to an expansion of the cadre program to the Technical College System through the creation of the Gender Equity Project. The funding source of the project is a grant under the Perkins Act and provides each of the colleges in the Technical College System with funds to develop activities that will increase the number of single parents and displaced homemakers enrolled in technical college programs, especially programs considered nontraditional for their gender.

There were three objectives identified for completion at each campus of the Maine Technical College System during the first year:

- To establish and support the position of gender equity recruiter/retention specialist.

- To design and implement an assessment of women's participation in academic programs and of the barriers that prevent students from enrolling in and/or completing programs considered nontraditional for their gender.

- To develop at least one comprehensive activity designed to lower the most troubling of those barriers.

The project has shown some results after just one year of operation. Central Maine Tech has convened a Women In Trades support group and completed student, faculty and staff surveys. Kennebec Valley Tech has instituted a math program for women, collected baseline enrollment data, conducted an attitude survey, and conducted a dropout survey. Southern Maine Tech has completed a student survey, hosted a conference on sex bias, and developed an NTO brochure. Washington County Tech has worked on recruitment of nontraditional students increasing the number from none to five in the first year. Eastern Maine Tech is developing surveys, marketing procedures and campus awareness programs. The Gender Equity Coordinators are working on a system-wide project. It is a viewbook that highlights women in nontraditional careers. All of the projects have received input from community members as well as students and faculty. Some businesses have donated funds to a few of the projects.

For more information see #3.

3. GENDER EQUITY DACUM

The Gender Equity DACUM project was developed at the recommendation of the Maine Council on Vocational Education in response to a request from the Bureau of Applied Technology and Adult Learning. The project utilized the DACUM (Developing a Curriculum) process which is the same format used to update all of the secondary vocational curriculum.

A group of ten people, some nontraditional workers and some who work with nontraditional workers, was brought together to identify barriers to recruitment, training, hiring and retention of nontraditional workers. A competency profile was developed from this two-day work session. The competency profile identifies strategies to remove barriers in trade and technical careers.

Five separate audiences were identified as impacting the process. Curriculum pieces will be written for each audience over the next three years. The curriculum piece for students has been written and is about to be pilot tested in the schools this year. It is a module that can be inserted in any curriculum at both the secondary and postsecondary levels. It is also designed so that business and industry can use it in staff training.

This project is very comprehensive. It targets not only students, but also educators, parents, business/industry/community members and policy makers.

For more information on all equity projects:

Edward Maroon
Bureau of Applied Technology and Adult Learning
State House Station #23
Augusta, ME 04333
(207) 287-5854

Susan Donar
Vocational Curriculum Resource Center of Maine
92 Western Ave.
Fairfield, ME 04937
(207) 453-9762

INTEGRATED STUDIES

1. INTERNATIONAL MEALS PROJECT

CALAIS REGIONAL VOCATIONAL CENTER

The food service program at Calais Regional Vocational Center has a unique way of integrating social studies with vocational education. Each year the twelve elementary schools in the area are invited to send fifth or sixth graders (up to 30 students each) to the vocational school for lunch.

Each group is asked to pick a country or a period in history that they are studying or are interested in learning more about. The vocational students then research the country or the time period and also research the foods appropriate to the selected topic and prepare a meal based on that research.

When the elementary students arrive, the vocational students present a history lesson on the subject matter chosen and the younger students are served the meal that was prepared relating to the theme. The elementary students are asked to select jobs to assist in the meal preparation and serving. The elementary students are given a tour of the school while the meal is being prepared.

This project has not only helped the food service students learn more about different countries and periods of time in history, but also it has helped to build self confidence in these students. An added benefit is that the elementary students have a chance to see the vocational center so that they have an idea of what is available for courses when they have to make choices later on.

The total cost of the project for all classes in 1991 was under $500.

For more information:

Peter Edgecomb, Director
Calais Regional Vocational Center
River Road, Calais, Maine
(207) 454-2581

2. AGRISCIENCES PROGRAM

PRESQUE ISLE REGIONAL VOCATIONAL CENTER

The Presque Isle Regional Vocational Center (PIRVC) vocational agriculture program closed in 1988 when its long-time instructor retired. The program re-opened in 1990 with an agrisciences and natural resources curriculum. Enrollment in the program in 1990 was 38 contact hours; it has grown to 102 contact hours.

The agrisciences program emphasizes hands-on learning about modern agricultural technology through real-life situations. It includes laboratories for production agriculture, horticulture, mechanics, and aquaculture. Students also have access to computer technology commonly used in agribusiness settings.

The program currently includes four different courses. First year students study plant science and horticulture during a fifty-minute Agrisciences and Natural Resources I course. They assist in the care of the 16' by 32' school greenhouse which is used to produce both houseplants and bedding plants. The plants produced are sold or are placed around school facilities.

Second year students study animal science in Agrisciences and Natural Resources II, also a fifty-minute class. They develop their knowledge about animal care through an aquaculture laboratory in which each student is responsible for the care of an aquarium. The laboratory, which was started in the fall of 1992, includes one room with 36 29-gallon aquariums, and a second room with five 700-gallon tanks. The systems are re-circulating and self-contained, and are being used both to produce tropical fish and to produce Atlantic salmon. The aquaculture program has received strong support from the commercial aquaculture companies of Maine.

As juniors and seniors, students explore agribusiness and also are required to develop their understanding of either animal science or plant science in more depth. They spend from 50 to 150 minutes in agriscience classes each day. Students complete a farm management plan, a marketing plan, an informational booth, award applications, and agriscience projects of their own design.

The program expanded in 1992 with the hiring of a second instructor. It serves as a year-round educational experience, with some students being hired as summer staff, particularly for work on the school farm. The farm operates as a commercial venture with crops including strawberries, apples, oats, sweet corn, potatoes, and a variety of other vegetable crops.

In addition, agriscience teachers and students work with elementary students and teachers throughout the year providing classroom agricultural presentations and tours of the farm, greenhouse, and other laboratory facilities.

Plans for expansion of the program in the future include developing interdisciplinary courses with both the chemistry and theoretical scientific concepts to actual agricultural situations. The department is also planning to build a 30' by 120' greenhouse which will be used for further production and landscaping ventures.

For more information:

Elizabeth Morgan, Instructor
Agrisciences and Natural Resources Department
PIRVC
79 Blake Street, Suite 3
Presque Isle, ME 04769

PARTNERSHIPS

1. MAINE YOUTH APPRENTICESHIP PROGRAM

The Maine Youth Apprenticeship Program (MYAP) was developed through the leadership of Gov. John R. McKernan, Jr. It is a vehicle that will help build the high-skills workforce that Maine needs in order to compete in the global marketplace. The Maine Youth Apprenticeship program incorporates aspects of both the Danish and German apprenticeship systems, and modifies them to the needs of Maine businesses.

The MYAP offers a three-year apprenticeship which begins in the 11th grade, and it could carry the student through the first year of training at a postsecondary institution.

The program combines intensive workplace training with unconventional approaches to education to ensure that students meet all of the standards required to graduate from Maine schools while they are training in a skill.

The Center for Youth Apprenticeship was established in May, 1992. It is housed on the campus of Southern Maine Technical College. The Center is responsible for developing and maintaining world class apprenticeship programs for Maine youth. It is headed by an International Advisory Board of Governors. The board is comprised of national and international leaders in education, business and labor.

There is also a separate policy advisory board which is responsible for establishing statewide performance standards for the apprenticeship occupations. This board is comprised of education, business and labor representatives from Maine.

The Center will coordinate the statewide implementation of the program with the tech prep coordinators at each of the six campuses of the Maine Technical College System. The Center is responsible for curriculum development and technical assistance to the schools and businesses involved in the MYAP.

Currently, there are demonstration sites in Gorham, South Portland and Westbrook.

For more information:

Susan Brown or William H. Cassidy
Center for Youth Apprenticeship
Southern Maine Technical College
Fort Road
South Portland, ME 04106
(207) 767-2248

2. UNITED TECHNOLOGIES and THE MAINE ARMY NATIONAL GUARD

United Technologies is a regional vocational technical school in Bangor, Maine's third largest city. The school has entered into a partnership with the Maine Army National Guard. The guard provides the school with state of the art equipment for use in the applied technology classrooms. This type of equipment could never be purchased by most schools because of the prohibitive cost. The Guard also provides instructors and curriculum at no cost to the school.

In return, United Technologies provides free maintenance on all of the Guard's state of the art equipment as well as access to the facility for Guard personnel training. This allows the Guard to reduce manpower and still maintain readiness training. The Guard realizes substantial savings for each training session conducted because it doesn't have to use the antiquated armory. The Guard units have more training time because they do not have the entire responsibility for equipment maintenance. In return, the school realizes some added revenue. The school is used year-round because of the Guard training.

Through the Civilian Acquired Skills Program, curricula are certified by the military and students can receive military credit for courses taken at United Technologies. These credits are accepted at the technical colleges through the Montgomery GI Bill and are recognized by the Advisory Council for Education of the Military in Maine. This will become a national program as soon as the American Vocational Association and the National Guard endorse it.

For more information:

Patrick O'Neill, Director
United Technologies
Hogan Road, Bangor, Maine
(207) 947-6474

Major Stephen Frost
262nd Engineering Battalion
Bangor, Maine
(207) 945-6484

3. CHILD CARE PROGRAM

BIDDEFORD REGIONAL CENTER OF TECHNOLOGY

The Biddeford Regional Center of Technology's Child Care program is not housed at the Technology Center. It is part of the new Biddeford Elementary School. In fact, the child care classroom was included in the design of the elementary school. It has its own entrance, telephone and staff area, but its students, teacher and resources are fully integrated into the elementary school's activities.

Adjacent to the Child Care classroom is a regular and a special needs kindergarten class. The Child Care program itself serves 20 four-year olds in the morning and 20 in the afternoon. It is fully enrolled with four-year olds through 1995.

About three-quarters of the technology student's time is spent in the day care center and the other one-quarter is spent in a work-study situation in the community. The students serve as teacher aides in the elementary school, too. Often the work study situations become full time employment for graduates. Generally, about two-thirds of the graduates go on to four-year programs in early childhood development at the University of Maine at Farmington, Plymouth College or Bay State College. Through the support of the teacher and the students, several of the special ed students have gone on to college as well.

While in the day care center, each student takes a turn at planning a day's activities. This involves the design of the activity, preparation of the budget for the activity, evaluation of the activity and evaluation of the other students' performance for the day. The student must prepare a report on the activity and the grades that are given to the other students become part of their grade for the year.

The technology students make learning packets for the day care students to take home. They also have made learning packets for the parents on subjects such as fear, death, divorce, and child abuse. The learning packets that have been made for first -third graders on subjects such as how to tell time and the alphabet are housed in the library so that all students have access to them.

The elementary teachers have access to all of the films, books and other resources that are available through the Child Care program. The carpentry students built a resource center to house the materials which are donated to the Child Care program. Both the center and the materials are available to the other teachers.

For more information:

Ronald Gagnon, Director
Biddeford Regional Center of Technology
Maplewood Avenue
Biddeford, ME 04005
(207) 282-1501

TOTAL QUALITY MANAGEMENT

1. NORTHERN PENOBSCOT VOCATIONAL REGION III

Lincoln is a small community in Northern Penobscot County. Lincoln Pulp and Paper is the largest employer in the area and has had major cutbacks. It is no longer a given that the children will follow in their parents' footsteps into a job at the mill. The jobs that do exist in the mill are more technical and require higher skills.

The director of Northern Penobscot Vocational Region III saw a need for the school to restructure to meet the changing needs of the community and the work force. At a time when the state was reducing its aid to school districts, the cooperative board voted to appropriate funds to hire a consultant to help them implement total quality management in the vocational school. The money was made available because existing resources were reallocated in order to implement the Total Quality Management (TQM) program.

The consultant worked with the teachers to help them become facilitators in the classroom and to help them work with the students to redesign the school. Part of the design process dealt with student accountability. The students identified longer school days, more discipline in the classroom, more access to school facilities after hours, and portfolio assessments of their performance as important changes.

Northern Penobscot Vocational Region III is now partering with Soundwell College in Bristol, England. They will begin student and teacher exchanges in the spring of 1993. Soon the faculty and students will begin working with some of the Eastern Bloc countries as they begin TQM in their schools and workplaces. The partnering was developed as a way to develop curricula and practices that meet global standards of quality.

The biggest benefit of the process is the difference it has made in the lives of the students. The students, as well as the teachers, have been empowered by this process. They are given, and they accept more responsibility. This is reflected in their attitudes toward school, family life, and, most importantly, themselves.

For more information:

Ashley LeBlanc, Director
Northern Penobscot Vocational Region III
17 West Broadway
Lincoln, ME 04457
(207) 794-3004

2. METAL MANUFACTURING PROGRAM

WATERVILLE REGIONAL VOCATIONAL CENTER

Waterville's Metal Manufacturing program is being taught using the principles of total quality management. The class is full and the students are enthusiastic.

Team work is fundamental to the success of the program. Students work together and help each other. The instructor is the team leader and students have a voice in the day to day operation of the program. They order the materials and the tools that they use. In that way they become knowledgeable about the cost of materials and about budgets. As a result, students waste less material and do not abuse the equipment. They are responsible for keeping the classroom, shop area, and machines clean.

The program is competency-based and performance charts are on the wall. Students participate in grading their own work. The instructor meets with each student upon completion of a project, and both student and teacher grade the work. (Often the student's grade is lower than the instructor's). The students have a voice in the testing as well. They can't vote to dispense with a test, but they can vote a postponement.

Students said in an interview that as a result of what they are learning in the Metal Manufacturing course, their grades have gone up in other subjects and they pay attention more in other classes because they know it will affect their performance in the vocational program. Most of them indicated an interest in going on to postsecondary education.

For more information:

James Wilkens
Waterville Regional Vocational Center
Brooklyn Ave.
Waterville, ME 04901
(207) 873-0102

OTHER

1. PRE-TECH PROGRAM

KENNETH FOSTER TECHNOLOGY CENTER

The Kenneth Foster Technology Center is located in the western part of Maine. It offers a full range of trade and technical programs to five area sending schools. In an effort to provide wider access to the applied technology programs, the school developed a Pre-tech program.

Pre-tech is offered one class period per day to students who are not enrolled in the applied technology programs. The students are able to choose two subjects each semester.

The program has expanded to ninth graders. Seventy-five ninth graders took advantage of the program in 1992. They are bused directly to the technology center for the first period class, then travel back to the junior high during a second period study hall.

The program has been successful because it enables the students who plan to enroll in applied technology to experience four trade areas before they make a choice. For those students who do not plan to take the technology program, it gives them a hands-on experience which may help them later in life. An added benefit for the school is that the Pre-tech program has resulted in an increased enrollment for the center.

For more information:

Richard Harvey, Director
Kenneth Foster Technology Center
c/o Mt. Blue High School
Farmington, ME 04938
(207) 778-3561

2. SINGLE PARENT PROGRAM

SOUTHERN AROOSTOOK VOCATIONAL EDUCATION

The Single Parent Program at Region Two is in its second year of operation. Ten students have taken advantage of the services offered through this program. These services include: transportation from their homes to the Child Care Center and/or school; child care while the single parents take coursework at their high school, the Adult Learning Center, or the Alternative Education school. A Parenting Skills course meets each afternoon for 40 minutes and all single parents attend.

This program has been instrumental in bringing back to school those students who had dropped out because of pregnancy. It also has kept first time mothers from dropping out of school.

In all cases, the Parenting Skills course will help these young people develop good parenting skills.

For more information:

Willard Ruliffson, Director
Southern Aroostook Vocational Education
Region Two Cooperative School District
PO Box 307
Houlton, ME 04730
(207) 532-9541

3. VOCATIONAL EVALUATION CENTER

LEWISTON REGIONAL TECHNICAL CENTER

The Lewiston Regional Technical Center (LRTC) is located in central Maine. In addition to its regular programming, LRTC administers the Lewiston Regional Alternative Center. The Vocational Evaluation Center is located in this facility. It is the most comprehensive assessment facility in the state.

The director of the center holds a masters degree in vocational evaluation. This enables the evaluation center to provide a wide range of assessment services. It has the capacity to evaluate over 200 students per year. In addition to the daytime students, the staff of the evaluation center works with adults in the evenings and also works with the clients at Mountain Valley Training, a JTPA service provider.

The center has more than eighty tools to use in conducting assessments. These technologies can develop information on students' mental and physical aptitudes as well as interests and abilities. They can provide information regarding memory retention and learning styles, and they can correlate academic capability with vocational interest to ensure more appropriate placement and remediation services. (The reading and math assessments are normed on industry norms.)

For more information:

Donald Cannan, Director
Lewiston Regional Technical Center
156 East Avenue
Lewiston, ME 04240
(207) 786-4446

4. THE SUMMER ACADEMY

OXFORD HILLS TECHNICAL SCHOOL'S BREAK-the-MOLD SCHOOL

Entering its fourth consecutive year, the "Summer Academy" is an unusual day camp for over 85 fifth and sixth grade youngsters in the 11 town area served by Oxford Hills Tech. Building picnic tables for an area park, exploring an active mineral mine, studying wildlife habitats at the Maine Conservation School, learning to operate a bulldozer, designing a silkscreen and printing it on a sweatshirt are some of the reasons students find the "Academy" to be a funfilled week of learning and exploration. Students discover that it's o.k. to be a female skidder operator or a male nurse. As pioneers for change, these students meet various individuals who selected nontraditional careers and why the decision-making process should not be blurred by myths.

Offering a blend of traditional and nontraditional occupations for students to rotate through during their five-day camp, experienced faculty and high school role models provide a mixed menu of program orientation and athletic activities and games into the six and a half hour day.

Students are selected by six elementary school principals and elementary guidance counselors. Applications are completed by students and parents with letters of acceptance mailed directly to the campers. The Tech School provides transportation, daily snacks, and special awards to students upon completion of the program.

As part of the Maine Department of Education's Sex Equity Cadre Program, the Summer Academy is both an outstanding barrier "breaker" and an exceptionally valuable method of exposing youngsters to vocational technical programs prior to heavy peer pressure.

Feedback from all participants has been overwhelmingly supportive of the program.

For more information:

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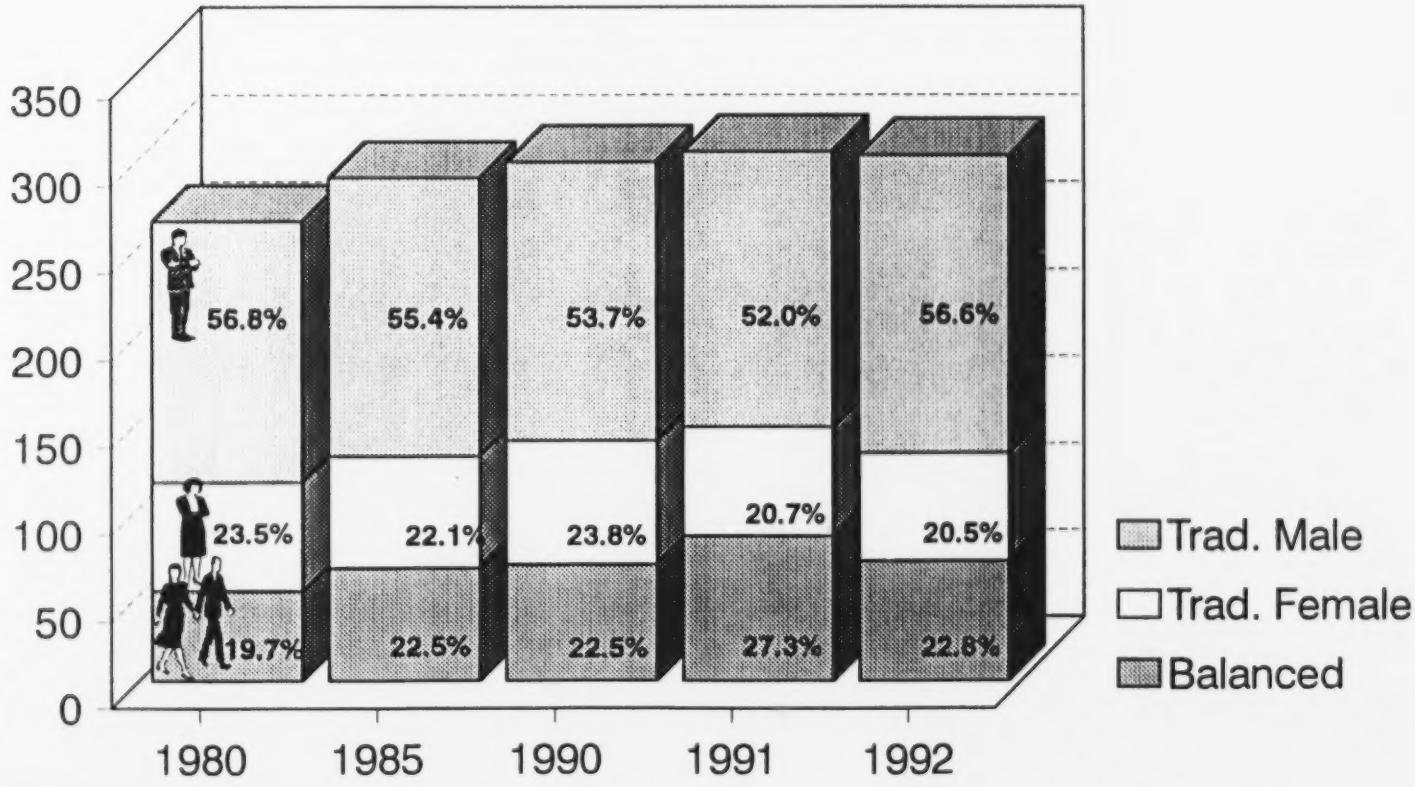
APPENDIX A

STUDENT ENROLLMENTS

Secondary Vocational Programs

Total Number of Vocational Programs

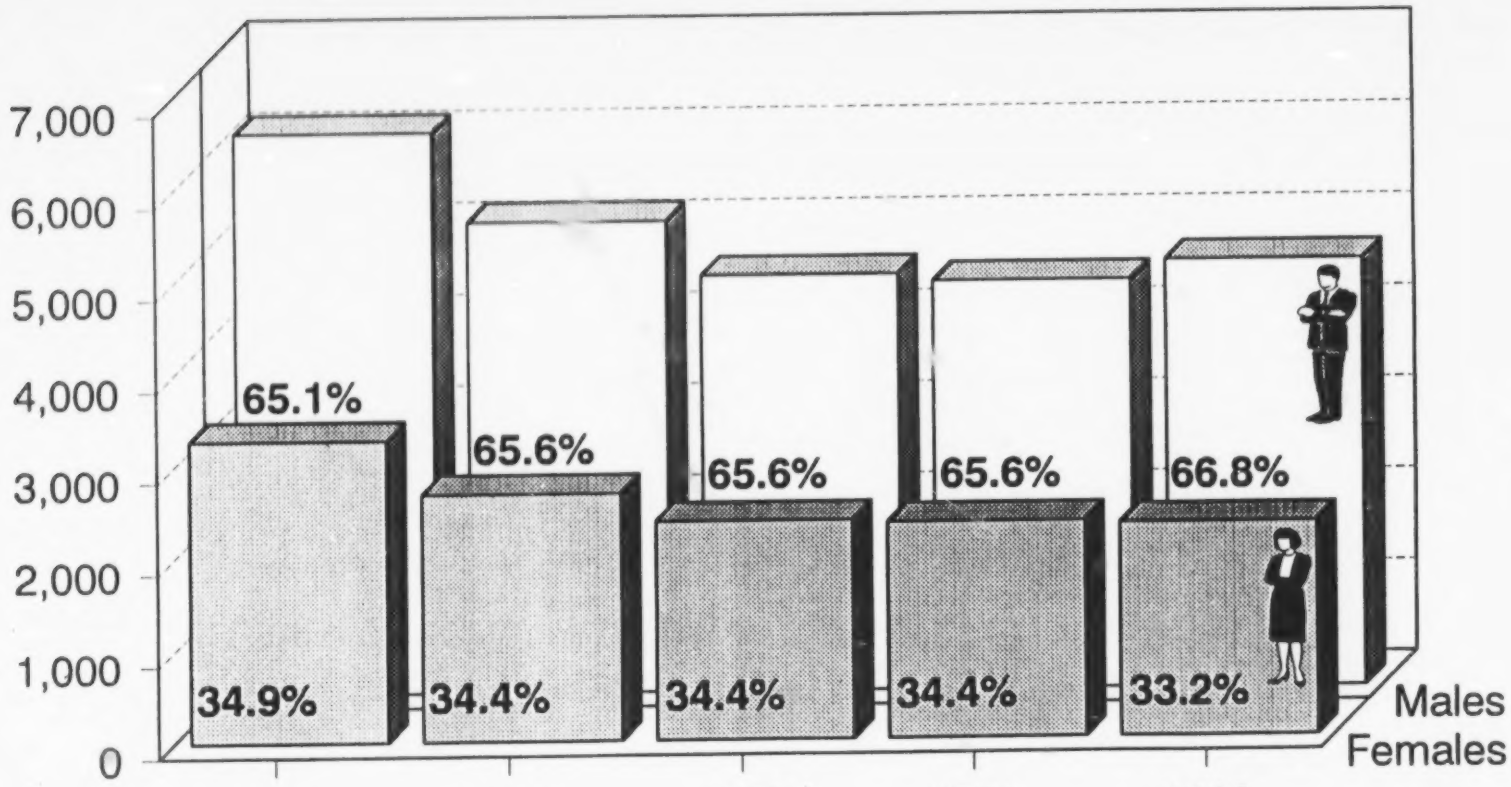


	1980	1985	1990	1991	1992
Trad. Male	150	160	160	158	171
Trad. Female	62	64	71	63	62
Balanced	52	65	67	83	69

Data based on ED738-A, Maine Department of Education

Secondary Vocational Enrollment

Total Male and Female Enrollment



	1980	1985	1990	1991	1992
Females	3,292	2,692	2,375	2,343	2,317
Males	6,117	5,139	4,538	4,457	4,664

Data based on ED738-A, Maine Department of Education

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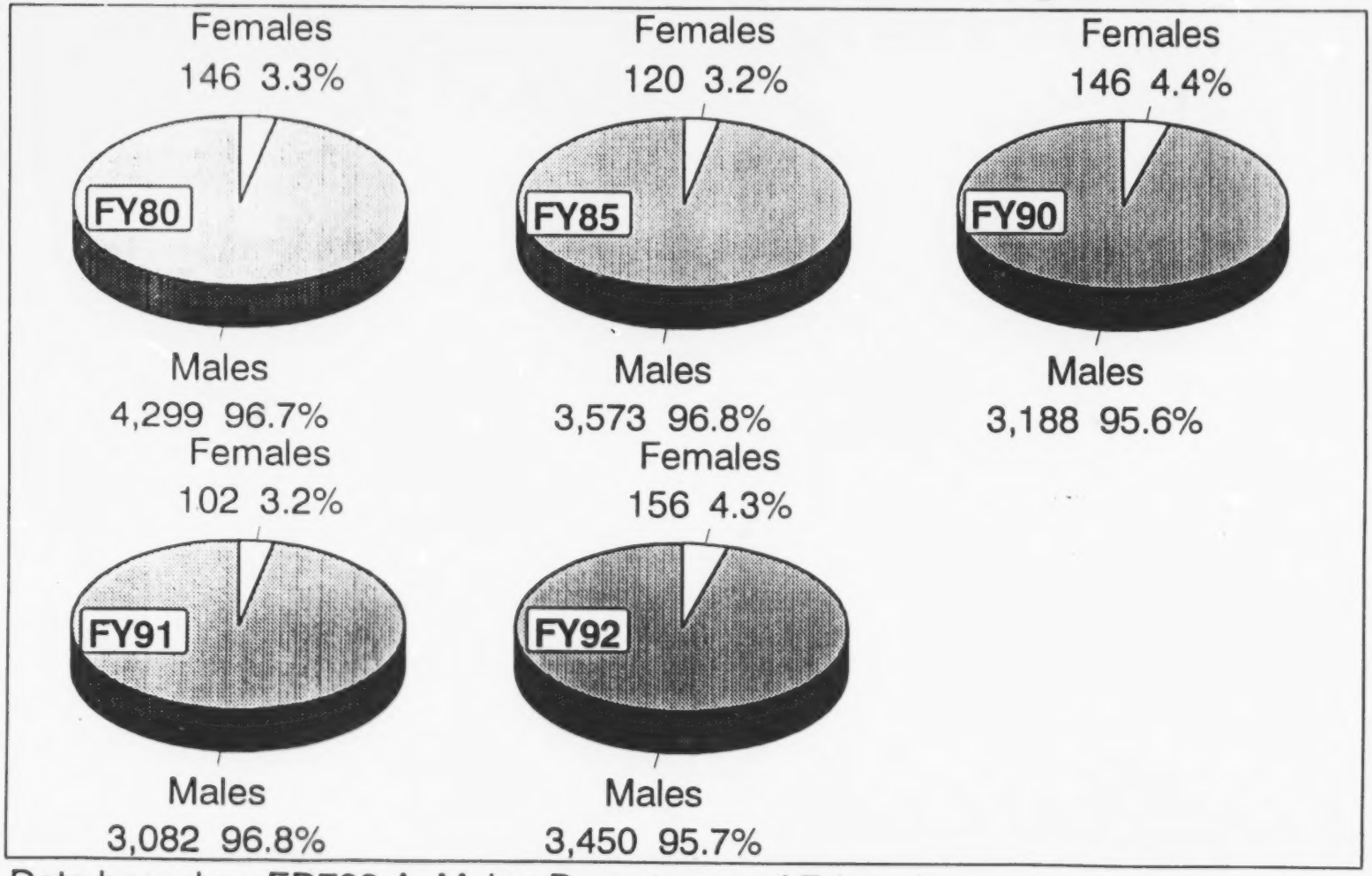
Secondary Vocational Enrollment

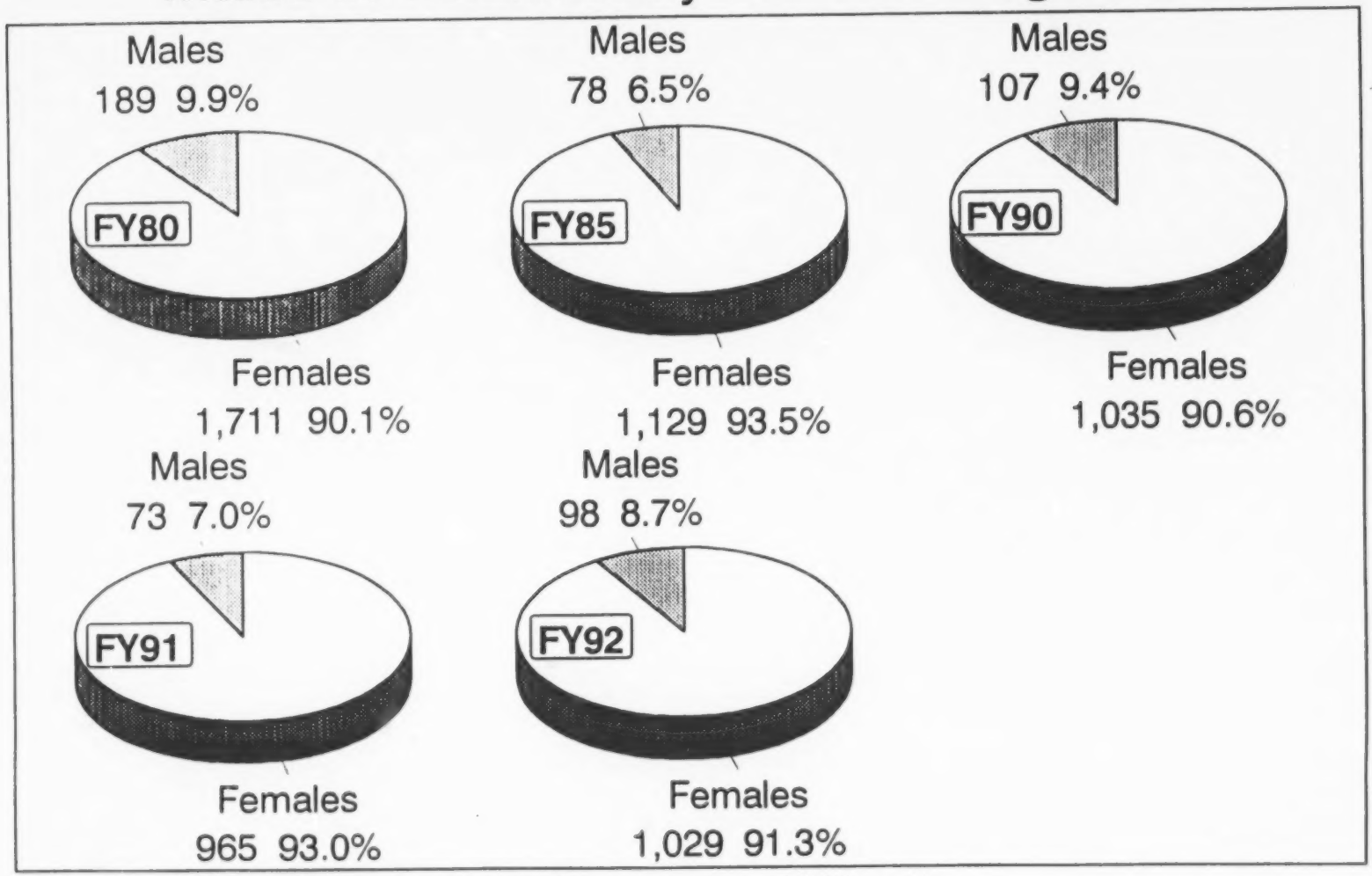
Females in Traditionally Male Programs



Data based on ED738-A, Maine Department of Education

Secondary Vocational Enrollment

Males in Traditionally Female Programs



Data based on ED738-A, Maine Department of Education

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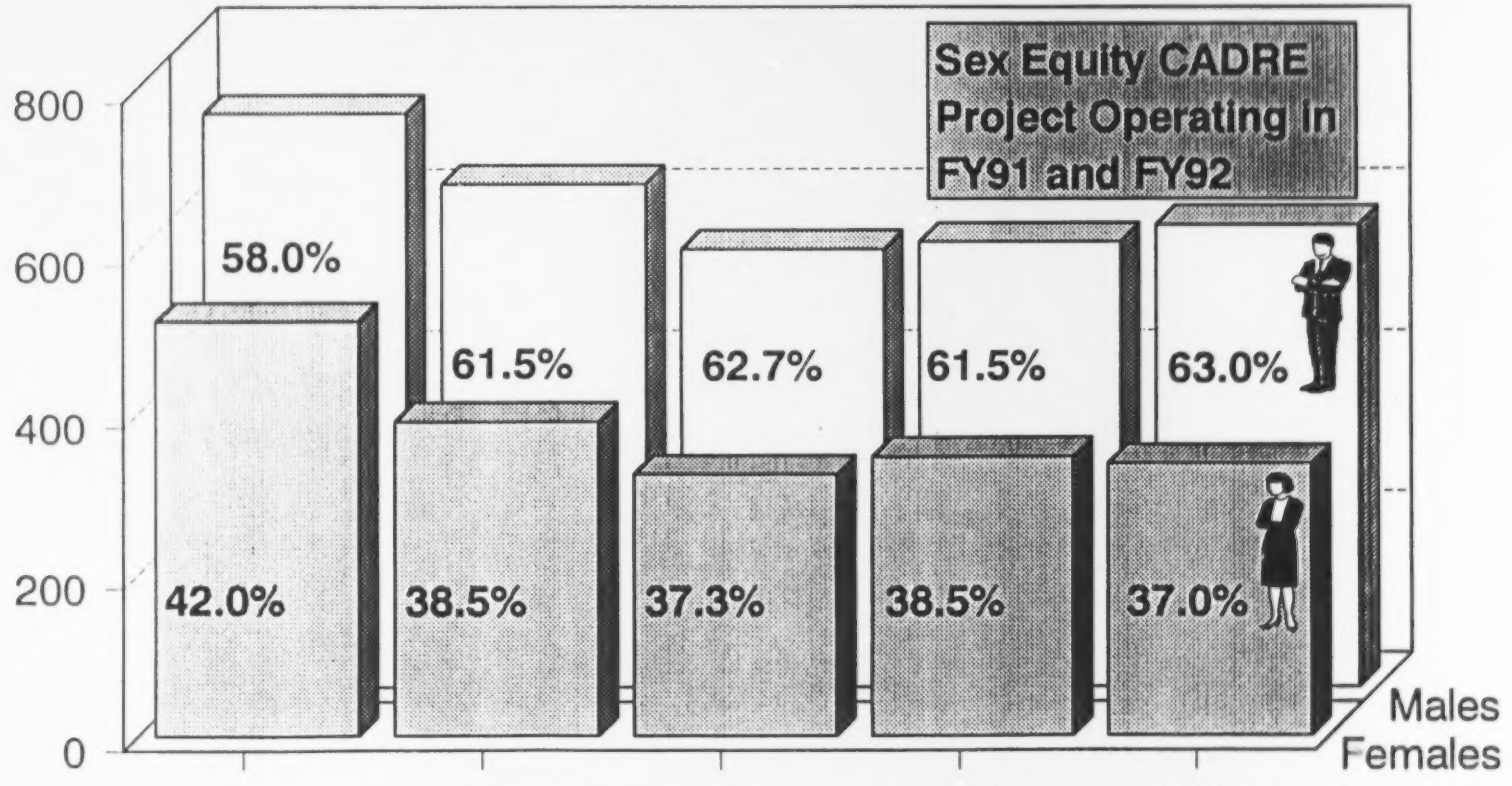
Secondary Vocational Enrollment

Male & Female Enrollment for Veteran CADRE Sites

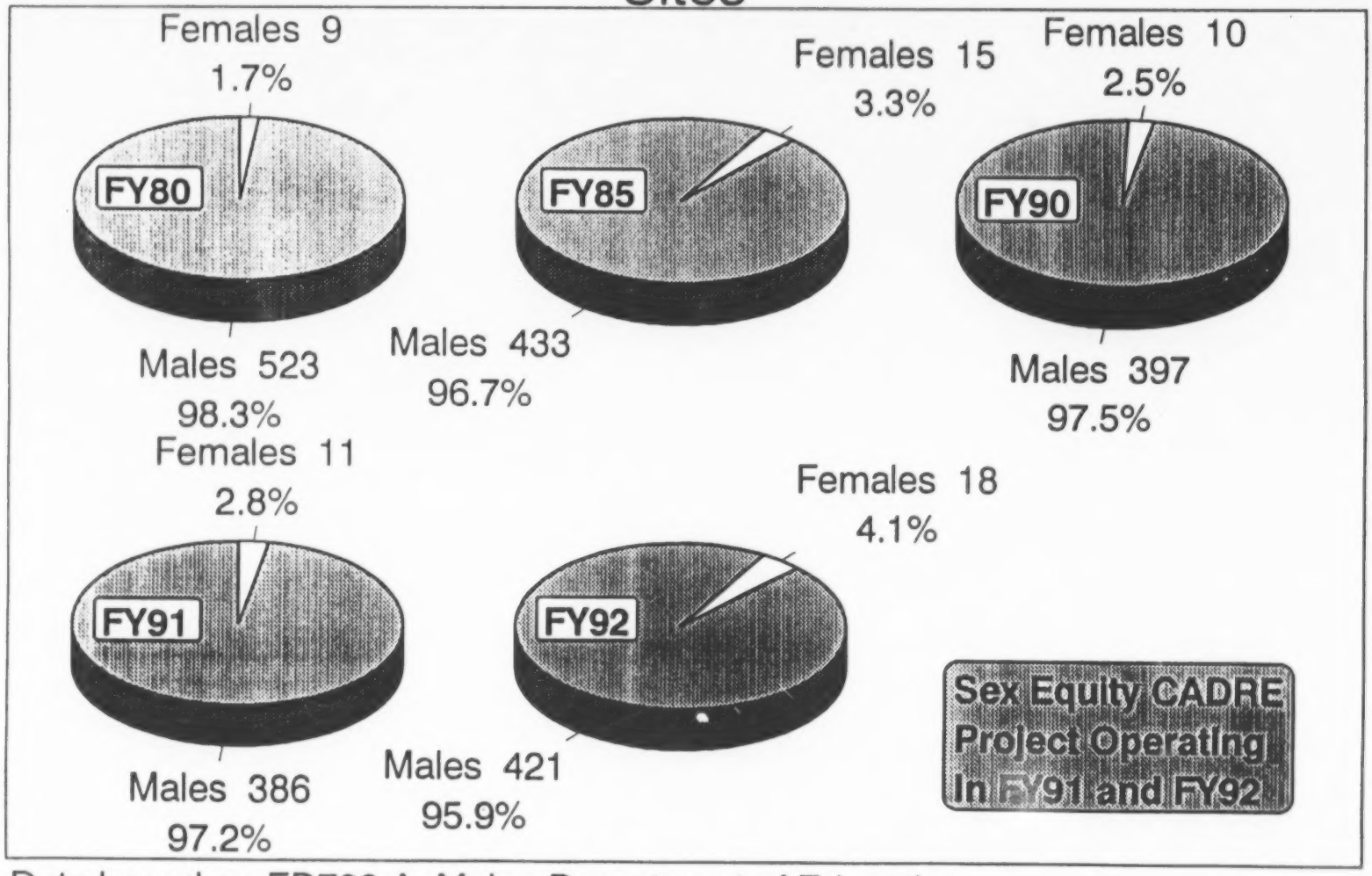


	1980	1985	1990	1991	1992
Females	513	389	323	345	336
Males	709	622	542	551	572

Data based on ED738-A, Maine Department of Education

Secondary Vocational Enrollment

Females in Traditionally Male Programs - Veteran CADRE Sites



Data based on ED738-A, Maine Department of Education

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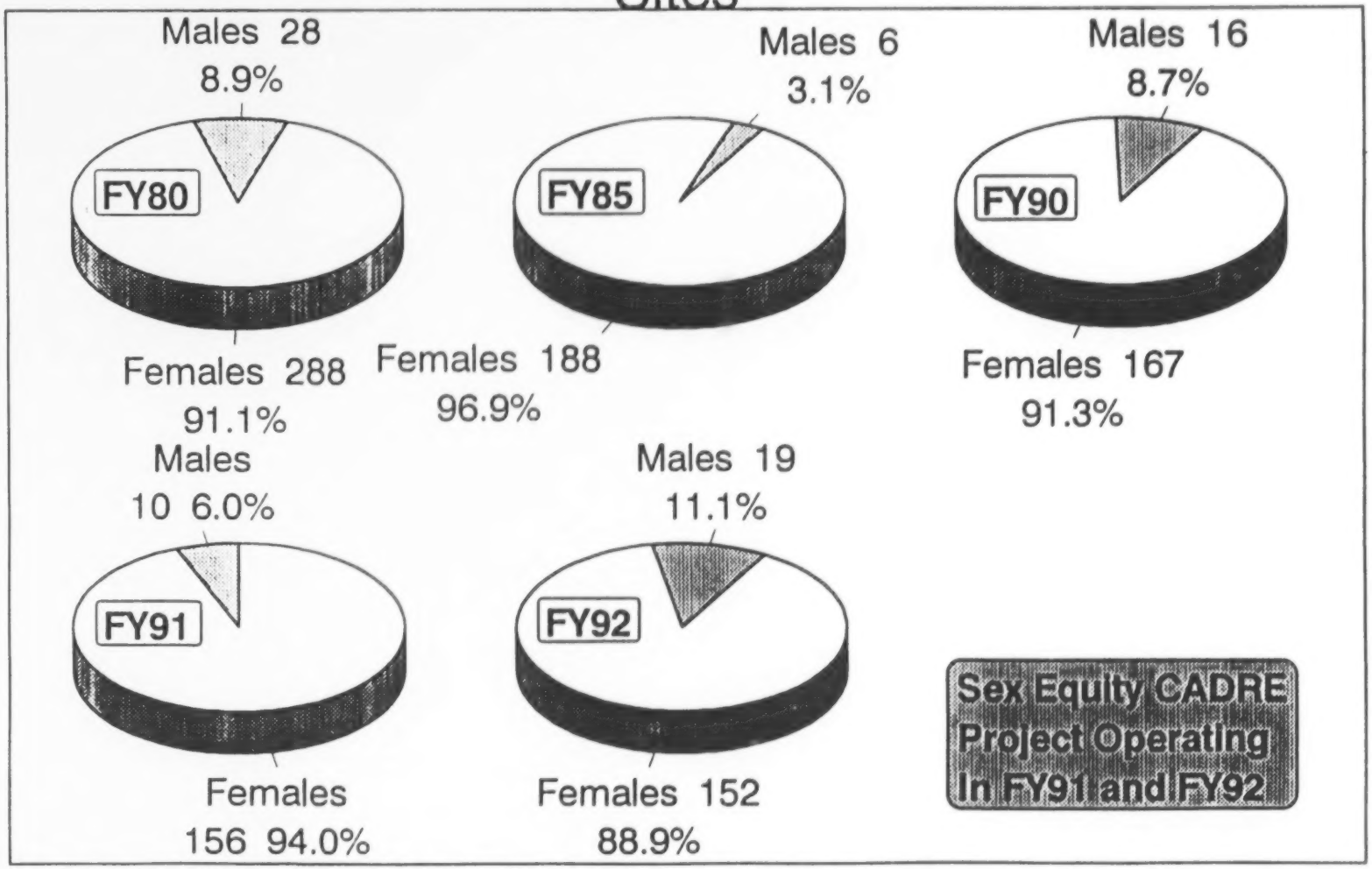
Secondary Vocational Enrollment

Males in Traditionally Female Programs - Veteran CADRE Sites



Data based on ED738-A, Maine Department of Education

APPENDIX B

EMPLOYER NEEDS SURVEY

EMPLOYER NEEDS SURVEY

Maine Chamber of Commerce and Industry
Maine Council on Vocational Educational
January, 1993

ACADEMIC SKILLS: Which academic skills are the most important for new employees? Please rank in each area.

Rank =	1	2	3	4
Reading Skills:				
- reading technical materials (e.g. procedural and computer manuals, reports, print-outs, correspondence, etc.)	36	28		
- analyzing and making decisions based on comprehension of materials	39	21		
Writing Skills:				
- prepare crisp error-free communications	42	9	6	3
- writing job orders	23	8	7	13
- preparing response to customer inquiry	16	17	12	7
- drafting memos to co-workers	7	8	16	14
Listening and Speaking Skills:				
- communicate with wide range of people	32	20	18	
- attentive to customers and co-workers	47	11	8	
- clearly state own opinion or position	10	15	26	
Math Skills:				
- strong basic mathematical operations (add, subtract, multiply, divide)	47	14	5	3
- basic computational math (decimals,%s)	14	21	11	6
- logic and reasoning	14	9	19	8
- statistics and measurement techniques	8	4	12	24

WORK READINESS: Check all columns that apply. In your business what type of skills are currently required for:

1. Entry level jobs;
2. Advanced level jobs;
3. What skill expectations from educational system.

	1	2	3
SKILLS:			
- English	62	54	58
- math	61	58	58
- interpersonal	61	55	43
- team work	59	58	42
- problem solving	43	65	55
- decision-making	36	65	36
- computer literacy	33	54	54
- impact of technology/computerization	29	57	47
- specific technical	28	52	32
- science	23	40	46
- analytical	22	58	42
- critical thinking	19	56	40
- leadership/organizational	12	57	32

EMPLOYEE ATTITUDES:

- **How well are your entry level employees prepared in the following areas: SCALE = Poorly to Very Well**

	1	2	3	4	5
- dependability	3	11	22	24	12
- responsibility	1	19	25	19	9
- ability to follow directions	2	7	31	24	8
- pride in workmanship	10	16	23	14	8
- working under pressure	5	16	31	16	5
- willingness to learn new skills	62	6	20	23	21

- **How would you prefer to have your employees trained? SCALE = 1>5 Most preferred to least preferred**

- given general knowledge in all areas in preparation for your specialized training	39	19	13	1	3
- trained generally in their field so further training is confined to their specific job.	25	30	10	3	--
- trained specifically and only in their field so that further instruction by your firm should be unnecessary	7	9	28	12	9

TRAINING RESOURCES:

- **What level of funding do you provide for training - % of payroll?**

0 - .9% = 10 3 - 9% = 11
1% = 9 10 - 24% = 8
2% = 10

- **What percent of your training dollars do you spend on the following groups?**

	0-10%	15-35%	40-70%	75-100%
Management	13	14	7	12
Mid-management	12	18	5	3
Front line workers	13	8	13	6

PARTNERSHIPS:

- **Are you currently involved in a business/education partnership?**

Yes 27 No 46

- **If NO, would you?** Yes 27 No 8 2 Don't know

HIRING PROTOCOLS:

What are your reasons for rejecting job applicants:
Rank Order = 1 most important and 8 least important

	1	2	3	4	5	6	7	8
- lack of basic skills	32	9	15	11	1	1	1	1
- little interest or poor reasons for wanting a job	17	15	8	13	7	2	9	1
- inability to communicate during interview	16	11	13	7	10	5	8	1
- lack of technical skills	8	13	5	5	8	15	11	5
- past history of job hopping	7	6	16	10	9	8	12	2
- inability to communicate in writing	5	8	3	7	6	12	16	14
- health record	3	4	5	3	4	7	5	39
- immaturity (other than chronological age)	1	3	6	12	25	16	4	3

What are your reasons for hiring one applicant over another:
Rank Order = 1 most important and 8 least important

- previous work experience	30	13	15	3	1	5	2	1
- basic skills	14	13	10	9	11	4	4	4
- interest shown in job applied for	14	5	4	11	13	10	10	3
- ambitions	9	3	6	12	11	9	9	12
- technical skills	8	9	7	14	7	11	7	7
- training background	7	19	15	14	5	5	6	4
- recommendations from previous employers	2	4	5	12	10	12	12	12
- social skills	2	2	6	8	9	11	11	12

Are you currently experiencing difficulty filling certain positions? Please specify:

- high turnover positions	4
- skill shortages	21
- academic deficiencies	19
- No	22

SIZE OF COMPANY BASED ON NUMBER OF EMPLOYEES:

0 - 4	=	4
5 - 9	=	4
10 - 19	=	4
20 - 49	=	9
50 - 99	=	10
100 - 249	=	19
250 - 499	=	9
500 - 999	=	5
1000+ -	=	10

TYPE OF BUSINESS:

- Manufacturing	38
- Services	15
- Transportation and public utilities	8
- Finance, insurance, real estate	6
- Retail trade	6
- Other	4
- Construction	2
- Engineering/Architectural	2
- Wholesale Trade	2
- Agriculture, forestry, fishing	0
- Mining	0
- Tourism	0

NOTE: Not all respondents answered all of the questions, and some gave multiple answers.

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